CHOOSING YOUR LIFE WORK

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CHOOSING YOUR LIFE WORK

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EDMONTON, ALBERTA

PRINTED AND BOUND IN CANADA
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T. H. BEST PRINTING CO., LIMITED, TORONTO

CHOOSING
Your Life
WORK

A Survey carried through under
the auspices of
The Alberta Teachers' Association

1938
THE ALBERTA TEACHERS' ASSOCIATION
EDMONTON ALBERTA

DEDICATED
TO THE YOUTH OF ALBERTA

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FOREWORD

THIS monograph was sponsored and made financially possible by the Alberta Teachers' Association on the suggestion of, and under the direction of Dr. M. E. LaZerte, Director of the School of Education, University of Alberta.

The questionnaire upon which the monograph is based was prepared by Miss Dorothy Deakin, B.A., a graduate of the School of Education, University of Alberta. Minor parts of Chapters I and XVIII were obtained from a Master's thesis by this same student. However, major credit for this monograph should be given to Mr. F. T. Tyler, B.Sc., who compiled and organized the data and wrote most of the report.

Some three hundred teachers of the Province kindly participated in the gathering of the data for the report. Approximately four hundred copies of the questionnaire, four to each vocation studied, were sent to assisting teachers who were asked to interview persons acquainted with a specified occupation. In each instance, if possible, one of those interviewed was a responsible official of some organization of employees in the vocation under consideration. After the report was completed, the material for approximately one-third of the vocations treated in this monograph was checked by some responsible person connected with that vocation.

The Alberta Teachers' Association wishes to thank all those who kindly supplied photographs for the cuts, all those who assisted in gathering the data or who later checked portions of the work, and particularly it gratefully acknowledges the work of Mr. Tyler who, after the data were available, organized and carried this work to completion.

M. E. LaZerte,
President, Alberta Teachers' Association.

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INTRODUCTION

SINCE existing economic conditions make it practically impossible for schools to give students actual vocational experience, it would seem that the next best thing to do is to give them *information about such experience.* Naturally, the same great claims cannot be made for this procedure as can be made for actual vocational experience. However, it should assist materially to develop in an individual appreciation of what his future responsibilities are likely to be. It should give him such information as may enable him to adopt a sympathetic attitude towards his fellows. It may do something in the way of developing initiative, by showing the need for this trait. It may help him to develop his powers of forming good judgments from a critical reading, questioning and discussion of problems relating to the realities of the working world. More use must be made of the most dominating of all drives, that of preparing oneself for earning a living. It is claimed that a study of vocations will, to some extent, help to satisfy this interest. Of course, actual experience in vocations is to be desired, but, in the absence of such opportunities, a study of them should be of great value.

Among other things education should be such as to prepare a young person to make an honest living and to be self-reliant and self-respecting. A study of vocations included in the whole educational program is intended to prepare trained workers well and broadly, since it provides the materials and methods for enriching and vitalizing general education.

This monograph has been prepared with this purpose in mind. It has been written for Alberta students with the hope that these students as well as teachers and parents will find the material useful, and that it may give some information which will be of help to those students who are at the age when the choosing of a vocation is of vital importance. The reader should note that this is not an easy book to read, since some of the material is in tabular form and covers a wide field. The tables are given in order that the pupil may see how many workers are engaged in the various jobs, compare the number in any given job with the numbers in other fields of work and with the total number of workers. In this way he may form some idea of the competition which he may expect to encounter in a job which he may choose. In some instances the student may find it necessary to obtain help from the teacher or from a more experienced individual in order to understand certain portions of the material. Some of the tables indicate average salaries and the average length of the working year of the workers in certain fields. A student should not be guided entirely by these figures; they are merely given for comparative purposes so that he may compare the conditions existing at a certain time in the various vocations. A change in economic conditions will result in changes in conditions in the vocations themselves. Thus, it is said that in the event of a building boom, there would likely be a shortage of *skilled* workers for the jobs offered by the building and construction industry.

All readers should read the first four chapters. Chapter I is intended to give the student an idea of what factors must be considered in looking for a life work. Chapter II shows the pupil which jobs certain Alberta students are thinking about. He may thus compare his choice with the choices of other Alberta students. Chapter III shows the relationship between the Alberta school system and vocational choices. Chapter IV gives the student an idea of how certain aspects of the working world have been changing and what are some of the general existing conditions. Chapter XIX should also be read by all. Chapter XVIII deals with the education of exceptional children. After having read these chapters the student should then read the section dealing with the occupation or occupations in which he is most interested. A student should not, however, confine his study to the occupation which holds his interest at the moment. He should realize that it is no disgrace to change his choice of vocation, for almost everyone has changed his wishes or his occupation, and some have done so several times. A broad knowledge of occupational opportunities is a valuable help in choosing one's life work.

A note on how to read the descriptions of these occupations might be in order. While reading the section dealing with a particular vocation the student should refer back to the tables given at the beginning of the chapter. These tables deal with the number of individuals gainfully employed and the number of wage-earners engaged in that occupation. He should note the conditions of unemployment among these wage-earners and compare them with those of other occupations. He should notice how average earnings of wage-earners in that occupation compare with those of others.

The statistics taken from the census reports and other publications of the Dominion Bureau of Statistics relate to conditions in Canada and in Alberta. Naturally conditions vary somewhat from province to province, but they are somewhat uniform in the Prairie Provinces. This latter fact suggests that only a small amount of modification need be made in order to make the material apply to the other Prairie Provinces.

Since the questionnaires for this investigation were obtained there has been a new wage law passed in the Province, and it must be remembered that the wage scales given refer to wages before the new act became operative.

The author hopes that the material contained in this monograph will arouse the interests of the youth of Alberta in the occupational world and will prove of value in helping them to choose wisely their life work.

F. T. T.

Edmonton, Alberta
January, 1938

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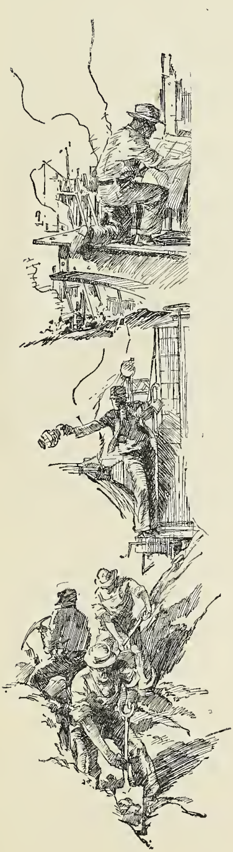
CHAPTER I

LOOKING AT THE WORKING WORLD



ONE of the most important problems with which a high school student is faced is the question of his life work. The reason for the importance, of course, is due to the fact that most of us are confronted with the problem of earning our own living and of providing for those who are dependent upon us. This means that about two thirds of all of our years of life are devoted to obtaining the necessities and luxuries provided by modern society. Most of us spend at least 44 hours a week at gainful employment in order to obtain the money with which to purchase the goods and services offered by our society. The majority of adults, then, are gainfully occupied for 8 hours a day for 5½ days a week. Since such a large share of each day is devoted to our work, and since the type of work in which we are engaged determines to what extent we shall share in modern goods and services, then it would appear that our happiness and general mental well-being are largely dependent on employment in the right occupation.

A Questionnaire on Vocational Choices. Now there are many hundreds of occupations in our modern industrial world from which high school pupils may choose their vocations. However, there are many factors which must be considered when one is looking for one's life work. In order to discover what occupations Alberta students are thinking about, a questionnaire was sent out to several teachers in the province with the request that they ask their pupils to answer the questions asked. (See Appendix B for a copy of the questionnaire.)

Answers were obtained from over 800 students in grades VI to XII inclusive, and we were agreeably surprised to find that over 82 different occupations were named by these pupils. Now this may not seem a very large number as compared with the hundreds of occupations that are available, but it really is considerable. However, despite the fact that more different occupations were named than we had expected, we believe that high school students are too limited in their choice of occupations. The fact that choices are limited to such a relatively small number of occupations may be explained in two ways:

(1) Students may be unaware of the many other occupational opportunities offered by modern society.

(2) Students may be interested only in those few occupations which they know of through parents, brothers, sisters and friends.

In either case we should all have more knowledge of what occupations are available, for that will increase the range of our choice, and it may be that this increased knowledge will transfer our interests to other occupations.

Only 3.5% of all the students questioned failed to indicate what they would like to do for their life's work. This is, of course, a relatively small percentage. However, we should also remember that these students had been given specific questions to answer and it is altogether likely that many of them gave an answer because they felt that it was expected of them. On the other hand, the mere fact that they did tell us what occupation they would like to enter, indicates that they were at least thinking of what they might like to do in order to earn their living.

About 3.5% of the students who indicated what occupation they would like to enter, did not answer the question as to why they would choose that vocation. Approximately one-half of the pupils chose their occupation because they believed that they would like that kind of work, or were interested in it. This, of course, is a very important factor for success and happiness in one's work, but there are other conditions which affect the amount of satisfaction which one can expect from engaging in a certain occupation. Certain personal qualities and abilities are necessary to enable one to be successful in the particular type of work which one selects. The characteristics of an occupation should be in harmony with one's own feelings, attitudes and desires; otherwise one may not get maximum pleasure from the work.

Aim of the Book. It is the aim of this book to give students some idea of the problems which they must solve in the course of selecting their vocation. Naturally we cannot give specific answers to all these problems. The answers will, indeed, depend on each individual. But it is hoped that as students read this material they will appreciate some of their difficulties, that they will get some idea as to what questions they must answer for themselves and how to go about finding the answers. The detailed study of a few occupations in the latter part of the book will give some specific facts, but students should bear in mind that there are hundreds of other jobs with which we cannot deal and for which they must look elsewhere for information. However, a study of these should indicate some features of employment in the world's work, and may suggest some other occupations.

University Training and Our Life Work. Schooling seems to be considered a panacea for all our economic difficulties, unemployment and vocational unhappiness. Now of course all students should get as much schooling as they can, but they should realize that there are many occupations open to them which do not demand a university training. Only about 7% of our working population are engaged in professional service, which, as we all know, absorbs the greater number of university graduates. Not all pupils have the particular type of ability or those likes and dislikes which lead to university study. We should not let this fact worry us. It is foolish to think that one cannot amount to anything unless one has a university education. We should be unwise to think of going to university if we lack the necessary abilities, interests and attitudes. We should also realize that a university education requires a good deal of money. In looking for a vocation then, we should try to find one which we have a reasonable chance of entering, from the standpoint of mental equipment, special abilities and financial possibilities.

Human Abilities in Relation to Occupations. We should take stock of ourselves. But before going on to talk about this matter of self-analysis we should first realize that a given occupation does not require a fixed and peculiar set of qualifications and abilities. Indeed, students with similar abilities might be equally successful in very different occupations.

Personal appearance is a vital factor leading to success in many occupations. It is said that an air stewardess must be attractive in order to obtain employment. Saleswomen too would be more likely to be successful if blessed with a neat personal appearance. The same high standard with respect to personal appearance is not demanded of machine operators in garment factories, nor of telephone operators. The latter, however, must have pleasing voices. Some occupations, such as those of the letter carrier and the nurse, require men and women who have strong feet and legs.

Some jobs require men and women who have a high order of intelligence, but there are many positions in which men and women of lesser intelligence can be successful. We are not all possessed of the ability of a Newton or a Pasteur. We should recognize this fact, and try to find a vocation which is suited to our mental capacity. It is very foolish for boys or girls to enter occupations for which they have not the proper mental ability; this is apt to lead to dissatisfaction with the work. There are some persons who can be successful in such clerical work as bookkeeping, but who would be failures in mechanical work. There are men who can be very efficient mechanics who would be failures in commercial art work. Remember, too, that a wide range of abilities is found in successful workers in any given occupation. If a person seems to have the ability to become an expert mechanic, happy in his work, why should he desire to become a teacher or a lawyer, in which occupations he might have very slender chances for success? The main thing is to choose an occupation which one will enjoy and in which one may be successful. An expert hairdresser is far happier and more respected than an unsuccessful teacher of household economics.

As we have already indicated occupations differ in their demands as to the character, personality and ability of the workers. It has also been observed that individuals differ in respect of these same qualities. Hence it should be possible, by a study of job requirements and of individual traits, to suggest that a certain individual has the potentialities for success in certain types of work. This does not mean that there is only one job in which an individual may be successful, for the demands of many jobs are closely related. For example, teachers of mathematics, accountants, statisticians, engineers and comptrollers all have the need for special abilities in mathematics. It may be that each of these jobs has some other requirements that would eliminate a certain man from that particular occupation, but at least they all have a need for mathematical ability. The possession of a certain ability may make it possible for a person to enter any one of several occupations. Now it must be noted that not all persons who have a mathematical ability have it in the same amount. Thus the accountant must have a high degree of this ability if he is to be successful. On the other hand the bookeeper needs to have a similar aptitude, only he does not require quite so much of it. An editor requires more verbal ability than does the average journalist. An electrical engineer requires considerably more mathematical and constructive talent than does an electrician. It should be noted that possession of mechanical ability does not mean that one can become a successful professional engineer. Such a man might lack the creative ability found in the exceptional engineer, or he might be interested in the manipulation of tools, rather than in designing machines. This man could likely become a very efficient car mechanic. So we could go on pointing out the consequences of the fact that not all individuals possess a certain ability in the same amount.

Another condition necessary for success is interest in one's occupation. Even though an individual has the amount of verbal ability required of editors it might be that he has more interest in journalism. If such were the case he would likely be more successful and happier in journalistic than in editorial work. Even though a person has the amount of creative ability required of the aeronautical engineer, he might still be more interested in making use only of his mechanical skill and so might be happier and more successful as a car mechanic than as an aeronautical engineer.

Self-analysis and Your Vocation

(1) *Your Abilities.* In looking for your life work you must ask yourself what abilities you possess, how much of each you have, and which one you are particularly interested in developing and using. The most successful persons are those who combine the greatest ability with the greatest enthusiasm for a particular task. Along with ability and interest there must be the education and training necessary to develop the ability to its highest level. You should, then, analyze your abilities and interests and *the possibilities of obtaining the requisite training for developing these abilities.*

(2) *Your Interests.* One way of discovering what job you might like is to analyze your interests as revealed by your hobbies, your leisure-time activities, and the type of reading you especially enjoy.

(3) *School Subjects.* A consideration of the school subjects you prefer and in which you have the greatest success would be very valuable, although even here the analysis may not be truly indicative of your abilities. A sincere liking for, and ability in, mathematics, might point to a career as an engineer, accountant, statistician or teacher of mathematics. If you enjoy the sciences you

might become a physicist, chemist, geologist or research worker, providing you have also the necessary aptitude and liking for mathematics. If you enjoy composition, literature and foreign languages you might consider becoming an author, lawyer, minister, editor, interpreter or advertising copy-writer. If you have a particular liking for art you might become an artist, sculptor, designer or architect. These are but a few human abilities and only a few of the occupations which an individual with a certain ability may enter, but they suggest how you may analyze your interest and thus see what occupations you might choose. A more complete list of abilities and related occupations is given below.

(4) *Persons, Ideas and Things.* You should ask yourself if you are more interested in persons, ideas or things. Occupation groups such as medicine, dentistry, teaching, social service, railway conductors, foremen and many business occupations in both the managing and selling departments require men and women who are primarily interested in dealing face-to-face with other persons. Some workers are required to deal indirectly with persons. Examples of such are journalists, advertising copy-writers, administrators in education and social research workers. Many research workers, engineers, architects, business managers, executives, draftsmen, bookkeepers and accountants deal mainly with ideas and symbols of things. Plumbers, carpenters, agricultural workers, men engaged in the production branch of industry and in the operating part of transportation, deal mainly with things. However, as you may have noticed from the above, many jobs require one to work with things and persons, things and ideas, or ideas and persons, or, indeed, with all three. Thus many foremen in factories might be dealing with two or more of these

factors. Dentists and medical doctors may be required to deal with all three. Hence you can see that it is very difficult to say that a certain job requires you to deal with only things, only ideas or only persons; some jobs do require more of the one type of interest than of the others. And so it should be clear, that if you are especially interested in working with things, you should not think of becoming an architect; or if you do not enjoy working with persons, you should not think of entering the ministry, teaching or of becoming an insurance agent, because most branches of these occupations require direct contact with persons.

Summary. We have seen that in looking for our life work it is necessary to consider our abilities, the amount of each ability that we possess and the enthusiasm that we have for an occupation that requires our abilities. Part of our decision must rest on our relative interests in persons, things and ideas, for different jobs require different relationships between the worker and persons, things and ideas. Let us see if there are other factors that we must consider. Remember again that we are looking for the occupation which will give us the *greatest total satisfaction.* Remember too that the financial prospects of obtaining the necessary training must always be considered in looking for one's life work. Do not decide in favor of a vocation for which you will not be able to get the necessary education. Look elsewhere. There is another job which will require less training and which needs your abilities. Before going on to a consideration of some of the factors determining one's satisfaction in one's life work, we might note that many persons, such as explorers and missionaries enjoy a high feeling of altruism, quite apart from the satisfaction to be derived from the work itself. The job may or may not be satisfying in itself, but they know that the work is socially useful and so they know that they are serving society. Such persons think more of society than they do of self, and so enjoy work which to most persons would seem undesirable.

Factors Affecting Satisfaction From Our Work

Let us now consider some of the other factors influencing the satisfaction which we may get from our work.

(1) *Use of Our Abilities.* We all like to be in the work which demands the greatest use of our abilities after they have been properly trained. Thus, if we had both mechanical and creative ability, we might not be as happy as a mechanic as we might be if we were a designing engineer. It might be that we are not particularly interested in, say, general dentistry, but are vitally interested in a specialized branch, such as oral surgery. If an occupation permits specialization, then we have an opportunity to develop the special ability and interest that we might have, and in that way we add to our satisfaction. Hence we should consider our ability to specialize and the need for specialists in the work in which we appear to have the proper interests and abilities.

(2) *Satisfaction to be Derived From the Work.* Almost everyone must get some satisfaction from doing his work if he is to be happy. However, we do not all get our satisfaction for the same reason. A reporter gets a great "kick" out of seeing his articles in print. A dentist gets his satisfaction from feeling that he is increasing the health of his patients. Machinists enjoy their work because they are able to repair some piece of machinery which is necessary for the operation of an industrial plant. An implement salesman is pleased when he sees farmers using the machines for which he is the agent. Consider what type of satisfaction you enjoy most.

(3) *Social Recognition Given to the Work.* Some persons desire a great deal of social recognition for their work before they are completely happy; others are quite content in work which society hardly seems to recognize. Thus, doctors are given a high rating by society. Most employees in industrial plants, cabinet makers and printers are not given any special social rating even though their work is important from the standpoint of the comfort and general happiness of the other members of society. It may be that society takes their work for granted because of the greater familiarity with their services.

(4) *Amount and Use of Leisure Time.* Some jobs give the worker a great deal of leisure time which he may use in any way he desires. Other occupations leave him with very little leisure time. Some workers enjoy regular hours; others have very irregular hours of work. We must consider this latter factor along with the amount of leisure time that we can expect in our occupation. Some persons like to do gardening in their spare time; others like to spend at least part of their leisure time at such recreations as playing golf or tennis. Some like to spend a great deal of time reading about new technological developments in their own particular branch of industry, or the new discoveries in the scientific or medical fields. You should then consider whether you are interested in being a student all your life and in looking forward to continual self-improvement in your occupation, or whether you desire only to increase your general knowledge. Some occupations require men who will always strive to improve themselves, while other jobs can be learned in a short time and no further increase in skill is necessary. Thus, a mechanical engineer must continue to keep up with the times, while many machine

operators in industrial plants need know only one job, the skill for which can be learned in a few days or weeks.

(5) *The Problem of Advancement.* Some persons are interested in advancing to the higher positions. Thus, some carpenters desire to become foremen, while others are content to do a good job of actual carpentry. Some occupations offer very few opportunities in the way of advancement; others offer many. We must, then, ask ourselves if we will have the desire to advance to new positions or if we would be content to stay with one job and do it well. It would not be wise for a man who had a continual urge for advancement to enter an occupation which offers very few opportunities for promotion. Thus, there are not many advanced positions available for bakers, letter carriers, or grain buyers, but there are for agricultural professionals and electrical engineers. You must remember that some of the more advanced positions require special abilities and training. Have you these abilities and can you get this training?

(6) *Employment Status of the Worker.* Some men desire to become employers or workers on their own account; others enjoy greater happiness as employees. Which type are you? If you think you would like to be an employer you should not think of entering railway occupations, for practically 100% of these workers are employees. On the other hand, there are many chances of becoming an employer or worker on your own account if you enter some branch of business or some of the professions.

(7) *Working Hours.* The working hours and the regularity of hours, as we mentioned before, are important factors in one's total satisfaction with his work. Most business and professional hours are from 9 a.m. to 5 or 6 p.m., and are in most cases quite regular. However, consider the hours of the medical doctor. He may

be required to attend a patient at any hour of the day or night. On the other hand, the dentist usually has regular hours. Are you the type of individual who could stand irregular hours, or would you not be happy unless you had regular working hours? Then again, the hours of work may vary as between the city and rural areas. Thus, city barbers have regular hours; town and village barbers may be required to work long, irregular hours. Some occupations require men to work during the night and sleep during the day. Thus, some policemen are on night duty; nurses are frequently required to be on duty at night. In busy times flour mills may be running three shifts a day, thus requiring some millers to work at night. Much of the baker's work is done during the early hours of the morning. Another thing to notice is that most business workers are given an annual holiday varying from one to three weeks with pay. This plan has not yet been put into general operation for members of the working class, although some mines now give annual vacations to their miners.

(8) *Travelling and Absence From Home.* Some men like travelling and do not mind absences from home. Your likes in such matters must be seriously considered. If you do not like travelling, or if you prefer to spend your evenings at home, you should not think of becoming a commercial traveller, school inspector, railway fireman or of entering some branches of agricultural professional work.

(9) *Duties Apart From the Job.* Some occupations require the workers to do certain tasks apart from the actual duties of the job. You should know what other duties a job might require and consider whether you can do them and whether you would like doing them. For instance, librarians and agricultural professionals are frequently required to give talks and radio addresses.

Teachers usually have to do certain work outside of school hours, such as preparing next day's lessons, marking tests and examinations, giving extra help after hours, taking an interest in extra-curricular activities and in various community services.

(10) *Political, Social and Religious Privileges.* Some occupations allow their members a great deal of freedom in their religious, social and political life; others require considerable curtailment of some of these activities. Are you an individual who would not be happy unless you could enjoy complete freedom in these phases of your life? If you are, you should not enter the civil service, for civil servants are expected not to take an active part in politics. Many skilled trades allow much greater freedom than do some of the professions in regard to these privileges.

(11) *Transferability of Training.* Training for some occupations is very valuable in case one is forced to seek employment in some other work. On the other hand, the training given in some occupations can not be applied to any other work. Thus, training in any line of business or finance is very valuable in case you wish to enter some other branch of business. On the other hand, training given to printers and aviators is applicable only to printers and aviators respectively. This transferability of training is an important point to be considered when you are looking for your life work, for future changes in the occupation you select may cause a great deal of unemployment, and the ease of transferring to some other occupation may have considerable effect on your general happiness.

(12) *Security of Tenure.* Security of tenure is a very important factor in determining the total amount of satisfaction which you will obtain from your work. A man who is continually worrying about the security of his

position can not enjoy his full measure of happiness. Most members of the working class seem to agree that continuity of income is more important to them than is size of income. Rather closely associated with the problem of security of tenure is the question of continuity of employment. Thus, in the West, the building trades are very seasonable, with the result that most of these tradesmen suffer seriously from unemployment. Again, many architects are engaged on such a basis that they may be dismissed on a month's notice, or they may be out of work when a certain job is completed. Slack times between jobs may seriously affect your happiness unless you are emotionally very stable. Another point to notice in the same connection is the fact that some occupations are very well organized. This permits the employees to bargain about rates of pay, working conditions and hours of labor as a group, rather than as individuals. Which type of bargaining appeals more to you—individual dealings with the employer, or negotiating with the employer as a group with your fellow-workmen?

(13) *Retirement and Pensions.* Would you like to be able to retire at a certain age with a pension? Some occupations make it possible for their employees to retire at about 65 years of age with a pension. Other occupations do not make this provision. Most civil servants take part in a pension plan which provides them with an income after they retire from work.

(14) *Occupational Hazards.* Some occupations offer serious physical hazards to their members. Men engaged in the building trades are particularly liable to accidents to life and limb. Again, chemists are subject to fumes and dangerous poisons which affect the heart, lungs and arteries. Of course, many business and professional occupations are very sedentary in nature and so may have

considerable effect on the health and nerves. However, these latter occupations usually offer to their workers ample time to indulge in out-of-door activities to offset the dangers from the indoor work.

(15) *Future of the Occupation.* You should consider what the future of an occupation is likely to be. It may be that you desire to become a doctor or a lawyer, but you prefer to have a monthly salary. Now it may be that in the near future we shall have a form of state medicine, in which case many doctors would be on a salary basis. Also many lawyers are finding employment, with a salary, with the larger industrial firms and financial corporations.

Again, you might desire to enter some branch of mechanical work or printing. It may be that these occupations will be seriously affected by technological changes. It is, of course, impossible to predict what the future may bring in the way of mechanization, but it is a factor worth keeping in mind.

(16) *Monotony of the Work.* Some jobs require a great deal of routine work. Are you the type of individual who could stand to do the same job over and over, day after day? For instance, in packing plants, a girl is engaged in placing a piece of cardboard and a piece of waxpaper in a machine which then makes the box which is to contain the shortening. This is all this girl is required to do. Would you like routine work like that, or would you prefer work in which there is variety and in which you need to use your initiative and originality?

Some jobs require that the workers co-operate, while other occupations depend entirely on the one individual. Thus, the dentist is required to do individual work, while clerical workers in larger offices must co-operate with their fellow workers.

(17) *Remuneration.* And finally you should ask yourself what you may expect to earn in a given occupation, because for most people, financial well-being and success are very important. This is really a relative matter, for the amount of income which you will need, will depend on the community in which you live. The main consideration is that the income be large enough to enable you to live on terms of equality with your friends. Size of income should not be the determining factor in a choice between, say, a professional and a business career.

These, then, are some of the features one must consider when one is looking for one's vocation. There are various ways in which one may obtain information relative to the above problems.

Obtaining Information About Occupations

(1) *Books.* There are many publications dealing with specific jobs, and there are many books which describe a great variety of occupations. The best thing to do is to consult as many different books on the occupations in which you are interested, as you can. In this way you will get a number of different views on vocations and these different ideas will be very useful in helping you to answer the problems relative to the selection of your vocation. You should remember that, as a rule persons talk more frankly than they write about the difficulties of an occupation. Consequently, it may be necessary for you to discount in your own mind some of the statements which you read.

(2) *Discussions With Workers.* Another way to obtain information is to go to successful men and talk to them about their occupations. Most men and women are quite willing to tell you about their work and the ad-

vantages and disadvantages to be found in it. It is wise to go to persons who have been engaged in their occupations for some time, for they are more familiar with the work and its requirements. However, it is also useful to talk to beginners and get their viewpoint on the occupation; but you should not take their views too seriously because of their inexperience.

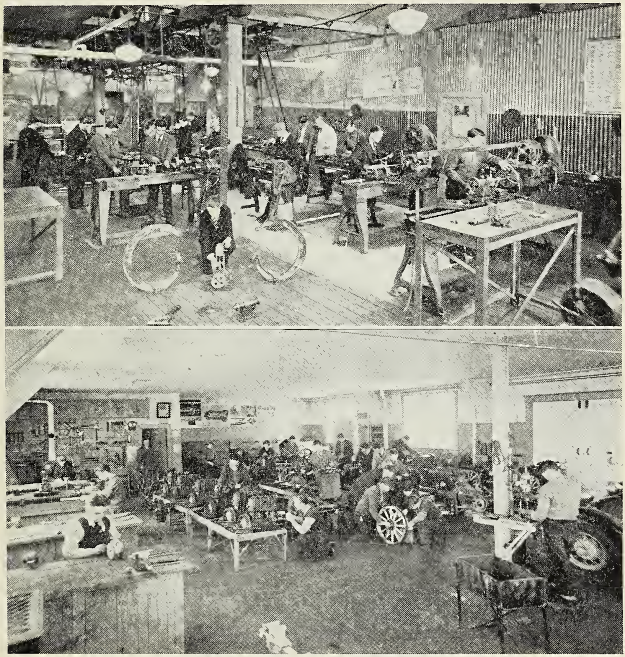
Talks with friends and relatives are also helpful. We must remember, however, that they might be biassed in their judgments, depending upon the extent of their success in their occupation. They might not consider that other persons have different abilities and desires.

(3) *Talks and Addresses.* Successful men might be invited to address the Literary Society in your school and to describe to you their occupations. Then, too, oral compositions during the composition periods might deal with vocations.

(4) *Employment and Industrial Visits.* Older pupils may be able to find summer employment, or even work after school, which may help them to obtain some insight into the work in which they think they are interested. This plan also gives actual practical experience "right on the job." Visits to industrial plants are very useful for obtaining an idea of the work of the plant and the variety of occupations to be found even in one industrial firm.

(5) *Technical Schools.* The Technical school gives one an opportunity of obtaining training for some particular occupation and, by giving practical work, gives one an idea of the nature of the job. In this way students are enabled to decide whether they would enjoy employment in that occupation. Thus, a boy might take a course at a technical school which would show him if he were fitted for the work of an electrician and if he would enjoy the work. Girls might take dressmaking courses, and thus

discover their interest in, and ability for, this occupation, and at the same time learn the work. Technical schools give a very important vocational training.



EDMONTON TECHNICAL HIGH SCHOOL
Upper: Machine shop. *Lower*: Motor mechanics' shop.

(6) *Intermediate Schools.* It should be one aim of junior high or intermediate schools to give students some knowledge of the occupational world. Some such schools offer regular classroom instruction in various occupations.

Some provide facilities for actual work in the school. These classes may be called try-out courses. A student spends a certain amount of time learning a few things about an occupation and its work. If he finds that he does not like it, he is free to take a different course. In this way he may get considerable experience in a variety of occupations. Other schools make arrangements for students to spend half the day at school, and the other half actually working in some occupation. At the present, very few such opportunities are open to students in the Alberta intermediate schools. Economic conditions make it very difficult to install the machinery necessary for training students for a certain occupation. Then, too, rapid technological changes soon make a machine old-fashioned, and of course unless the student can work on modern machinery he is not discovering the actual work of that occupation. Finally, as we have already pointed out, there are many more aspects to be considered than merely the tasks involved in a vocation.

Types of Abilities and Related Occupations. Let us now see what are some of the abilities found in man and what occupations are related to these abilities. Again remember that each ability and its related occupation is not in a water-tight compartment, separated from the rest. Thus, mathematical analysis is necessary in many occupations, although possibly in varying amounts. We can not say, because a man has what we may call scientific ability, that he can become a successful chemist, unless, possibly, he also has mathematical ability as well as verbal and linguistic and constructive ability. All we wish you to get from the following section is the idea that some occupations are closely related to certain abilities, but that they may also require varying amounts of other abilities.

Types of Abilities and Related Occupations

a. Verbal and linguistic—fluency in use of one's own language, and facility in learning other languages. Perception of verbal relations.	a. Author, lawyer, professor, minister, editor, advertising copy-writer, etc.
b. Scientific—facility in defining, classifying, grasping principles, inductive reasoning, perceiving relations of rule to example.	b. Research worker, physician, physicist, chemist, geologist, psychologist, etc.
c. Mathematical—facility with abstract symbols (and relations of cause and effect)—perception of complex number relations.	c. Mathematics teacher, accountant, statistician, engineer, comptroller, etc.
d. Clerical and commercial — accuracy and speed in handling numbers, names, systems and details.	d. Bookkeeper, credit man, purchasing agent, cashier, clerk, etc.
e. Constructive and mechanical—perception of spatial relations, facility in designing, calculating, working with machinery, etc.	e. Engineer, architect, inventor, tool maker, printer, etc.
f. Manual skills—dexterity in using tools, skill with hands and fingers, precision in co-ordinating movements.	f. Surgeon, dentist, sculptor, artist, skilled mechanic, special skilled trades, etc.
g. Artistic — appreciation of form and color, facility in crafts and in imaginative interpretations.	g. Artist, sculptor, architect, designer, composer, actor, dancer, etc.
h. Executive — initiative, self-reliance, ambition, leadership.	h. Director, manager, foreman, inspector, etc.
i. Social—sociability, co-operativeness, tact, personal pleasingness, helpfulness.	i. Politician, teacher, personnel or social welfare worker, salesman, etc.
j. Practical—efficiency in practical affairs, calmness under pressure, persistence, courage.	j. Air pilot, sea captain, army officer, surgeon, etc.

The above list of abilities and related occupations is taken from *Students and Occupations* by Williamson, page 32. (By permission of Henry Holt and Company.)

Personal Qualities. There are certain personal qualities which it is desirable that all individuals possess. Possibly not all of these are absolutely essential to success in all vocations. Different occupations require different degrees of development of some of these qualities. However, we should all strive to develop these personal qualities. Some of these desirable traits are:

(1) Honesty, reliability, integrity and a sense of honor.

(2) Spirit of co-operation, the ability to meet and mingle with men.

(3) Common sense, good judgment and the ability to view a problem from all angles.

(4) Efficiency, promptness in action, application to work, care of details.

(5) Initiative, originality, imagination, ingenuity, resourcefulness, ability to form accurate decisions and to act upon them quickly.

(6) Courtesy, recognition of rights of others, and conscious effort to be agreeable, and conformity with accepted social forms.

(7) Health. Good health is of inestimable value, and so every effort should be made to maintain it.

These are but a few personal qualities which we would all do well to develop. In the sections dealing with certain selected vocations some of these good qualities are again mentioned, merely to emphasize their importance in that occupation. However, we should remember that these are excellent qualities for all members of society to possess.

Obtaining Employment.[1] How does one obtain a position? The following are the main methods by which an individual obtains work:

(1) As a result of information obtained from, and through the influence of friends, relatives and acquaintances.

(2) By applications, personal or in writing, to various firms and companies.

(3) By answering advertisements.

(4) Through employment agencies and placement bureaus.

(5) From notices of new business enterprises in trade and professional magazines.

Whenever possible we have included in the discussion of each vocation in the later chapters a list of persons to whom application for employment may be made.

The following steps in seeking employment are suggested:

(1) Prepare a list of the firms or organizations with which employment in the desired occupation may be obtained.

(2) Learn all possible facts about each of these companies, such as their policies, how they treat their employees, what are the possibilities for advancement and whether they make it a practice to promote employees who show the proper ability and have the necessary training.

(3) Obtain the name of the individual or individuals to whom applications may be made.

Letters of Application. The following points should be noted with respect to letters of application:

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[1] The information for the remainder of this chapter was obtained from a Master's thesis by Miss Dorothy Deakin.

(1) A letter must be carefully prepared. It serves as your representative, and so must do you credit. Obtain any information as to style, contents and general organization from a competent person.

(2) Be careful of English, spelling, stationery, and proportionate amount of space given to each topic.

(3) The following information should be given: address, telephone number, date and place of birth, religious preference, race, health, education, special qualifications, employment record and references.

The Personal Interview. The following principles with respect to personal interviews should be noted:

(1) Personal appearance can not be too strongly emphasized as one of the most important factors in determining the nature of the first impression left with the employer. Clothes should be neat and business-like. Care in these details gives one a feeling of self-confidence, which shows itself in the course of the interview.

(2) The applicant should report alone for the interview; friends and relatives should never accompany an applicant to an interview.

(3) Do not appear boastful. Do not talk too much, but rather give all the necessary information in a clear concise manner. Convey the impression of interest in and liking for the work being sought.

(4) Do not appear over-familiar. A young man should either retain his hat in his hand or else place it on the floor, but certainly not on the employer's desk.

(5) Even though an applicant does not receive an appointment, he might ask the employer he has just interviewed if he can suggest where else employment might be sought.

Holding a Position. The proper personal qualities are probably the most important factors in retaining a position. Some of the desirable personal qualities were mentioned in a preceding section, and further qualities desirable for specific vocations are mentioned in the discussion of each occupation later in the book. Then, too, one must set himself the task of learning all he can about his occupation and its relationship to other allied occupations. Only that individual who knows the work can hope to receive any promotion. Develop a feeling of responsibility for the work. Show an interest in fellow-workers, develop a spirit of co-operation, make use of initiative whenever the occasion arises. Have an interest in the advancement of the firm. These are a few suggestions for the individual who is desirous of retaining his position and who is seeking advancement to more responsible positions.

CHAPTER II

WHAT CERTAIN ALBERTA STUDENTS SAY WHEN ASKED ABOUT THEIR LIFE WORK

In this chapter we propose to indicate some of the more important conclusions which can be drawn from a study of the answers given on the questionnaires which we have already mentioned. (The questionnaire is given in Appendix B.)

Reasons for Choosing Certain Occupations. A study of the answers to the questions indicates that intermediate and senior high school pupils are too limited in their choice of occupations. Further, the reasons they give for choosing a certain vocation would lead us to believe that they are unaware of the implications of the occupation for which they express a preference. Students chose their occupations because they thought a certain type of work would be fun, or because it would be easy, or because it was a good paying job. A few chose occupations because of the opportunities for advancement which these jobs offered. The opportunity for advancement is a vital factor to be considered when one is looking for one's life work. However, many of these students were in error when they said that the vocation they preferred offered opportunities for promotion, for actually the field they chose was seriously overcrowded or there were not many better positions available in that occupation. Then, too, consider the girl who chose nursing because it "is nice, clean, easy work." High school students need more information about jobs if they are to be able to choose their life work wisely.

The following table gives a summary of the reasons given by these students for choosing certain jobs.

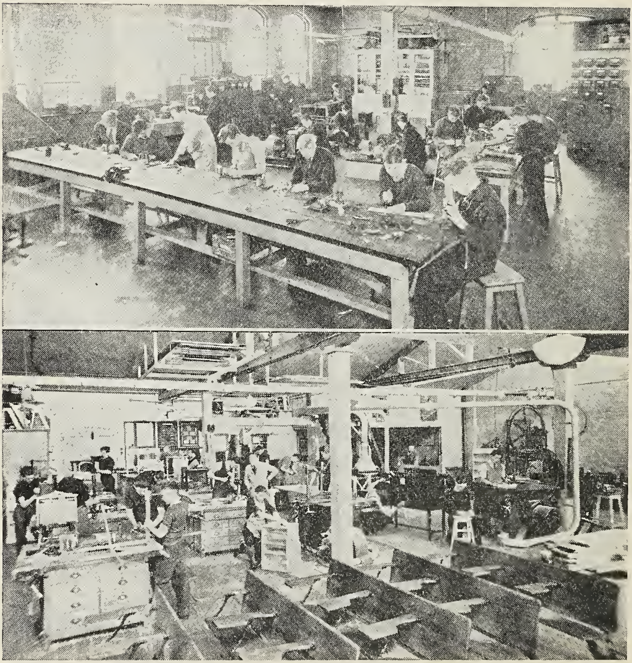
TABLE I

SUMMARY OF REASONS GIVEN BY STUDENTS FOR CHOOSING A CERTAIN JOB FOR THEIR LIFE WORK

Reason	No. giving this reason	% giving this reason
Interested in it, likes it	426	52.4
To be of service to other persons	99	12.1
Good paying job	83	10.0
Good future, plenty of openings	54	6.7
Special ability for it	46	5.6
Outdoor life, thrilling	34	4.2
No reason	29	3.5
Influenced by relatives, friends	28	3.4
Useful, necessary work	19	2.3
Easy Work	16	1.9
Gives one a better education	15	1.8
Independent work	10	1.2
Fun	8	0.9
Clean work	8	0.9
New field	7	0.9
Does not require expensive education	6	0.7
Short hours, early retirement, security of tenure	6	0.7
Healthful	3	0.4
Not monotonous	2	0.2
Few entering	1	0.1
Parent could get him a job	1	0.1

Notice that a great many chose a certain vocation because they thought that they would like the work or because they were interested in it. Now you should like and be interested in a certain occupation before choosing it for your life work, but as we have already indicated, other factors should also be considered. Have you analyzed your reasons for believing that you would like a certain job or why you are interested in it? Have you asked yourself if you have the abilities required for that job? Indeed, do you know anything about what you would be expected to do if you entered that occupation? *Notice that less than 1% of these students considered the question of the expense necessary to fit themselves for their* *vocations, and that almost 50% of these students desired to enter professional service—the very occupations which demand years of expensive training?* It is a fine idea to desire to hitch your wagon to a star, but do you think that it is wise to pick on the most distant of the stars—the job for which you will be unable to obtain the necessary training because of lack of the necessary funds?

A study of the table reveals that a few good reasons



Edmonton Technical High School

Upper: Electrical shop. *Lower*: Woodwork shop.

were given by some of these students for choosing a certain vocation, providing they realize that more than one reason should be found for selecting a certain occupation for their life work.

Notice that a few students are thinking about such factors as the following:

(1) healthfulness of the job
(2) monotony of the work
(3) not many entering the occupation
(4) independent nature of the work
(5) newness of the field.

Students who gave such reasons as these are really thinking about their work in a serious way. As we have already indicated, it is hoped that this book will aid all students in asking themselves the necessary questions about their life work, and in finding a few of the answers.

Are Students Influenced by Relatives in Their Choice of Occupations? It is interesting to note that only 3.4% of these students admitted that they were influenced in their selections by relatives and friends. No doubt children of to-day are freer from this influence than was the case in the past, but it is likely that more students are thus influenced than is indicated in this table. Approximately 23% of the boys who answered this questionnaire chose the same industrial groups as those in which their fathers were engaged. Of course the mere fact that they are choosing the same industrial groups does not mean that they are also choosing the same occupations. The following table indicates the percentage of boys who are choosing the same industrial groups as their fathers:

TABLE II

PER CENT OF BOYS SELECTING THE INDUSTRIAL GROUP IN WHICH THE FATHER WAS ENGAGED

Group	Per cent of boys choosing fathers' industrial groups
Agriculture	28.3
Manufacturing	3.8
Transportation	35.8
Building	6.6
Commerce	4.9
Professional service	52.4

From this table we can see that more professional men's sons were choosing their fathers' group than was the case for any other group. Transportation was a popular group for sons of men engaged in transportation, but it must be noted that many boys desired to be pilots, whereas none of the fathers was engaged as an aviator.

Occupations Chosen by These Students. Let us now consider what occupations these students were choosing and how many were choosing each occupation. There were 82 different vocations chosen but the choice of occupations of 59% of them was limited to 8 different occupations. These same 8 vocations use 56% of all gainfully employed men and women in Alberta, *but if we exclude agriculture, then 52% of these students were limited in their choice to 7 different occupations and these same 7 occupations required only 5.8% of the gainfully occupied population of Alberta.* The seven occupations included in the above summary are: aviation, medicine, mechanics, music, nursing, stenography and teaching. About 65% of the girls chose only three different occupations, namely, teaching, nursing and stenography. Only 30% of the gainfully employed females in Alberta in 1931 were engaged in these three occupations.

The following table shows the different occupations chosen and the number of students choosing each. Included in the summary are 387 boys and 428 girls.

TABLE III

NUMBER OF STUDENTS CHOOSING EACH DIFFERENT OCCUPATION

Occupation Group	No. who chose it	Occupation Group	No. who chose it	Occupation Group	No. who chose it
Accountant	2	Detective	2	Naturalist	2
Actor	4	Diesel engineer	4	Nurse	120
Air hostess	3	Doctor	27	Minister	1
Agricultural professional	5	Dressmaker	7	Postmaster	1
Architect	2	Druggist	12	Radio work	9
Artist	14	Electrical engineer	14	Railway conductor	1
Astronomer	1	Elocution teacher	2	Railway engineer	4
Author	2	Engineer	23	Rancher	11
Aviator	75	Farmer	60	Ranger	1
Barber	1	G-man	1	Reporter	12
Biochemist	1	Grain buyer	1	R.C.M.P.	8
Blacksmith	1	Hairdresser	8	Sailor	2
Bookkeeper	5	Historian	1	S. A. officer	2
Boxer	1	Home Economics	5	Seamstress	1
Business	11	Housewife	7	Sectionman	1
Camp leader	1	Inventor	2	Scientist	1
Car driver	2	Jeweller	2	Sports	3
Carpenter	8	Jockey	1	Station agent	1
Chemist	13	Journalism	2	Steam engineer	1
Chiropractor	1	King cowboy	1	Stenographer	97
Civil engineer	5	Lawyer	5	Teacher	60
Clerk	19	Librarian	1	Telephone operator	2
Cook	1	Mechanic	35	Theatre manager	1
Cowboy	2	Mechanical engineer	8	Tinsmith	1
Dairying	1	Missionary	2	Traveller	5
Dancer	5	Mining engineer	4	Professor	2
Dentist	7	Musician	33	Waitress	2
Designer	1				

The next table is intended to show the relationship between the occupational groups chosen by the boys and the occupational groups in which their fathers were employed. Let us see how to read the table by considering the choices of the sons of professional men. Two sons of men engaged in professional service desired to enter agriculture; 2, manufacturing; 6, transportation; and 11, professional work. On the other hand what were the fathers' occupational groups in the cases of those boys who chose the professions? By reading down the table, in the column labelled "Professional," we find that 48 boys who desired professional work came from homes in which the fathers were engaged in agriculture; 8, in manufac-

TABLE IV

THE RELATIONSHIP BETWEEN THE OCCUPATIONAL GROUP CHOSEN BY BOYS AND THE OCCUPATIONAL GROUP IN WHICH THE FATHER WAS EMPLOYED

Fathers' Occupational Group	Boys' Choice of Occupation Group											
	Agriculture	Manufacturing	Transportation	Building	Commercial	Administration	Professional	Entertainment	Clerical	Engineering	Total	
Agriculture	49	18	28	4	6	5	48	1	2	12	173	
Manufacturing	2	3	12	1	3	2	8	1	......	......	32	
Electric light, power	......	......	1	......	2	......	......	2	......	......	5	
Transportation	2	......	10	......	8	2	5	......	1	......	28	
Building	3	......	2	1	1	......	4	2	......	2	15	
Commercial	8	5	11	2	2	1	11	......	......	1	41	
Finance	......	......	1	......	1	......	3	......	......	......	5	
Administration	......	......	2	......	......	1	1	......	......	......	4	
Professions	2	2	6	......	......	......	11	......	......	......	21	
Personal service	2	1	1	......	......	......	3	......	......	......	7	
Entertainment	......	......	......	......	......	......	1	1	......	......	2	
Clerical	......	......	......	......	......	......	1	......	......	......	1	
Unskilled	1	1	......	......	......	......	3	1	......	2	8	
Engineers	1	......	1	......	......	......	2	......	......	3	7	
Total number of boys	70	30	75	8	23	11	101	8	3	20	349	
Total needed to keep the 1931 distribution	210	18	13	21	24	3	11	½	10	......	349	(app.)

turing; 5, in transportation; 4, in building; 11, in commerce; 3, in finance; 1, in public administration; 11, in professions; 3, in personal service; 1, in entertainment; 1, in clerical work; 2, in engineering; and 3, in unskilled labor. From this it appears that boys are not limited in their choices to their father's occupational groups.

The last row in the above table indicates how many boys out of 349 (approximately) should be desirous of entering each occupation group in order to keep the same proportion of workers in each group as there were in 1931. Three workers are required in finance; 12, in personal service; 3, in electric light and power, and 24, in the remaining groups. Notice that about the same number of farmers' sons were choosing the professions as were choosing agriculture, namely, 48 and 49 respectively.

Influence of Older Brothers and Sisters. Are students influenced in their choice of occupation by their older brothers and sisters? The following table indicates the percentage frequency of similarity by grades, between the occupation chosen by a girl or a boy answering the questionnaire, and the actual or desired occupation of older sisters or brothers respectively; i.e., what per cent of the

	Grade		
	6	Intermediate School	Senior High School
Comparison between	% frequency of occurrence in similarity of students' choice and work of older sisters or brothers		
Boys and older brothers	20	29	18
Girls and older sisters	28	21	23

girls or boys who had sisters or brothers chose an occupation that was similar to the desired or actual occupation of that older sister or brother.

From the table it appears that about the same percentage of students might be influenced by the work or choice of work of their older sisters or brothers as there were boys who might have been influenced by their fathers' occupations. Senior high school boys would appear to be somewhat less influenced by their older brothers than senior high school girls are by their sisters, while the reverse seems to be the case for junior high school pupils.

Desired Occupational Groups of Older Brothers and Sisters. The following table indicates the occupational groups chosen by the older brothers and sisters, compared with the choice of girls and boys answering the

TABLE V

Comparison of Occupational Groups Chosen by Older and Younger Sisters and Brothers and the Census Distribution of Alberta, 1931

Occupational Group	Older children choosing this group %	Younger children choosing this group %	Census Distribution %
Agriculture	11.0	9.0	50.9
Mining	0.8	0.0	3.6
Manufacturing	5.1	1.3	5.2
Building	2.4	1.1	3.0
Transportation	7.5	12.0	5.9
Trade	2.0	1.8	6.6
Finance	0.0	0.0	0.8
Professions	48.0	47.2	5.1
Personal service	3.5	1.3	7.7
Clerical	9.4	15.0	4.1
Entertainment	0.4	2.3	0.2
Administration	2.4	1.6	0.7
Laborers	0.0	0.0	5.7

questionnaire and the census distribution of 1931. It is interesting to note that the proportion of older children choosing each occupational group is somewhat closer to the census distribution than was the case for the younger pupils. However, about the same percentage of older brothers and sisters would like to enter the professions.

Per Cent of Boys Choosing a Few Selected Occupations. The following table shows the percentage of boys, classified by grade, choosing each of a few selected occupations.

TABLE VI

PERCENTAGE OF BOYS, CLASSIFIED BY GRADE, SELECTING CERTAIN OCCUPATIONS

Occupation Group	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Artist	1.4	0.0	0.0	1.5	2.0	2.5	5.6
Aviator	25.3	14.8	23.8	13.8	18.0	7.5	5.6
Business	4.3	3.3	0.0	4.5	2.0	2.5	0.0
Chemist	1.4	3.3	0.0	3.0	4.0	7.5	5.6
Doctor	2.8	0.0	3.2	6.0	6.0	0.0	16.8
Engineer	5.6	6.6	7.9	6.0	10.0	2.5	0.0
Farmer, rancher	16.9	27.9	19.1	13.8	11.0	12.5	5.6
Mechanic	11.4	8.2	15.9	11.5	4.0	5.0	2.8
R.C.M.P.	7.1	1.6	1.6	1.5	0.0	0.0	0.0
Total for these occupations	76.2	65.7	71.5	61.6	68.0	40.0	42.0

What conclusions can we draw from the above table?

(1) There seems to be less concentration on a few occupations as pupils progress to the senior high school grades. Thus, only 34% of the boys in the senior high school desire to be aviators, engineers, farmers, or mechanics, while 56% of intermediate school boys are choosing these occupations. Also, 51% of the boys in senior high schools are limiting their choice to the

above 9 occupations, while 66% of intermediate school boys are so limiting themselves.

(2) An increasing percentage of boys, while yet passing through the grades, are looking forward to careers in professional service. Notice the decreasing interest in aviation, farming, mechanics and administration in the higher grades.

Per Cent of Girls Choosing Certain Occupations. The following table indicates the percentage of girls in each grade choosing certain occupations.

TABLE VII

Percentage of Girls, Classified by Grade, Selecting Certain Occupations

Occupation	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Aviatrix	2.8	1.4	4.6	2.8	3.6	0.0	0.0
Clerk	0.0	4.1	1.5	4.2	0.0	3.8	0.0
Farmer	2.8	1.4	0.0	1.4	0.0	0.0	0.0
Housewife	5.5	2.4	1.5	0.0	0.0	0.0	0.0
Musician	2.8	11.0	16.7	4.2	3.6	0.0	5.1
Nurse	37.5	28.8	18.2	26.8	34.6	19.2	30.8
Stenographer	15.7	19.2	31.8	25.4	18.2	26.9	23.0
Teacher	22.2	13.7	4.6	14.2	12.7	15.4	12.8
Telephone operator	1.4	0.0	1.5	0.0	0.0	0.0	0.0
Hairdresser	1.4	0.0	1.5	2.8	0.0	5.8	2.6
Total for these occupations	92.1	82.0	81.9	81.8	72.7	71.1	74.3

Again we note how limited are the choices of occupations among girls. Approximately 64% of senior high school girls and 62% of intermediate school girls chose nursing, stenography or teaching. Notice the increase in the popularity of stenography as the girls progress from grade VI to grade XII.

Per Cent of Pupils in Each Grade Choosing Each Occupational Group. The following table indicates the changes in the occupational groups chosen by pupils as they pass from the lower to the higher grades.

TABLE VIII

PER CENT OF PUPILS IN EACH GRADE CHOOSING EACH OCCUPATIONAL GROUP

Grade	Agriculture	Manufacturing	Transportation	Building	Commercial	Administration	Professional	Personal Service	Entertainment	Clerical	Mechanical	Engineering
6..........	9.1	0.0	17.5	0.0	2.1	4.2	41.2	0.7	5.6	8.4	5.6	2.8
7..........	13.4	1.5	9.7	3.0	3.0	2.2	44.7	0.7	1.5	12.7	3.7	3.0
8..........	10.9	2.3	17.8	0.7	0.7	0.7	30.2	2.3	1.4	20.1	7.8	5.4
9..........	7.3	0.7	10.3	1.4	1.4	2.2	44.0	2.2	0.7	18.4	5.1	3.7
10..........	10.4	0.9	12.3	0.9	0.9	0.0	54.6	0.0	2.7	13.2	1.8	0.0
11..........	5.4	3.3	4.4	1.1	1.1	0.0	57.0	3.3	1.1	19.6	2.2	1.1
12..........	2.7	1.3	8.0	0.0	0.0	0.0	70.7	1.3	1.3	13.0	1.3	0.0
Alta.	50.9	5.2	5.9	3.0	6.6	0.7	5.1	7.7	0.2	4.1		

The outstanding feature of the above table is the large percentage of pupils desiring to enter professional service. Notice that there is an almost continuous increase in preference for the professions from grade VIII to grade XII. While there is in no grade a high percentage choosing commerce, still there seems to be a gradual decline in interest in this field from grade IX on. There is also a decline in interest in administration from grade VI on. Notice also the decline in interest in mechanics and engineering after grade VI. As a general rule there seems to be more interest in practically all the occupational groups other than professional service in the intermediate school.

Table IX shows the per cent of pupils by grade in town, village and rural schools who chose each group.

TABLE IX

PER CENT OF PUPILS, CLASSIFIED BY GRADE AND SCHOOL, CHOOSING EACH OCCUPATIONAL GROUP

Grade	School	Agriculture	Manufacturing	Transportation	Building	Commercial	Administration	Professional	Personal Service	Entertainment	Clerical	Mechanical	Engineering
6	T	7	0	17	0	2	6	40	0	9	10	5	3
	V	12	0	25	0	0	0	45	3	0	8	5	3
	R	15	0	0	0	8	8	54	0	0	0	15	0
7	T	12	1	10	4	2	3	47	0	3	13	3	2
	V	6	0	23	0	0	0	41	0	0	18	12	0
	R	29	5	0	0	0	0	43	5	0	9	0	9
8	T	9	3	17	0	0	1	35	2	2	21	3	4
	V	6	0	19	0	0	0	19	0	0	19	30	6
	R	23	0	18	5	0	0	18	5	0	14	9	9
9	T	5	0	12	2	4	1	40	1	0	20	7	7
	V	6	0	10	0	6	6	44	3	3	15	6	3
	R	19	5	5	0	0	0	44	5	0	9	9	5
10	T	11	1	14	1	4	0	54	3	8	0	1	0
	V	11	0	11	0	0	0	57	4	18	0	0	0
	R	0	0	0	0	0	0	50	0	37	0	13	0
11	T	6	0	6	2	3	0	54	5	2	20	2	2
	V	6	6	0	0	0	0	62	0	0	25	0	0
	R	15	0	0	0	0	0	62	0	0	15	8	0
12	T	2	2	8	0	0	0	70	2	2	13	2	0
	V	9	0	9	0	0	0	63	0	0	18	0	0
	R	0	0	0	0	0	0	100	0	0	0	0	0
All Grades	T	8	1	12	2	2	2	48	1	3	15	3	2
	V	9	1	15	0	1	1	47	1	1	15	7	2
	R	17	4	5	1	1	1	44	3	0	12	8	5
All Grades	All Schools	9	1	12	1	2	2	47	1	2	15	4	3
Alberta	....	51	5	6	3	7	......	5	8	....	4	....	......

T—Town; V—Village and R—Rural school.

Let us see what conclusions we can draw from the above table.

(1) There seems to be a decreasing interest in agriculture from grade VI to grade XII among town and rural school pupils.

(2) It is difficult to say very much about manufacturing except that in order to retain the 1931 proportion of gainfully employed men and women in this industry more students will be required to enter manufacturing.

(3) Interest in transportation seems to decline among pupils of all types of schools in the higher grades.

(4) Very few pupils desire to enter the building trades.

(5) Interest in administration is highest among younger pupils.

(6) A small percentage of grade VIII pupils choosing the professions seems to be found in all three types of schools. Aside from this one grade, pupils in all schools show an increasing interest in the professions as they pass to the higher grades.

(7) More interest is shown in personal service by rural school pupils than is the case in either town or village schools.

(8) Pupils of all types of schools show about the same interest in clerical work.

(9) Rural school pupils show the greatest interest in mechanics and engineering, and town school pupils the least.

(10) Students are unaware of the need for workers in the production of power or in finance for there were no students choosing these occupational groups.

(11) Too many pupils desire to enter transportation, professional service and clerical work than would appear

necessary, unless there is a serious change in the proportion of gainfully employed men and women in these occupational groups within the next few years. Such a radical change does not seem likely to occur.

Indecision of Pupils as to Their Choice. There were 29 pupils who were undecided as to what they would like to do for their life work. The following table shows the percentage of pupils in each grade who were undecided.

Grade	6	7	8	9	10	11	12
% of pupils undecided	1.1	2.3	0.8	1.5	7.5	5.4	1.3

It seems that senior high school pupils are less sure of what vocation they would like to choose than are other students.

The following table indicates the percentage of pupils in each grade who gave no reason for selecting a certain vocation for their life work.

Grade	6	7	8	9	10	11	12
% of pupils who gave no reason	2.1	4.5	3.1	3.7	4.7	2.2	2.7

From this table it appears that intermediate school pupils are less able to give a reason for their choice than are senior high school students, although there is really very little difference.

Table X indicates the number of pupils per different job chosen by these students. Notice that grade VI pupils chose more different jobs than did grade XII pupils but there were more grade VI pupils answering the questionnaire.

TABLE X

NUMBER OF DIFFERENT OCCUPATIONS CHOSEN AND NUMBER OF PUPILS PER DIFFERENT OCCUPATION

Grade	Different occupations	Pupils per different occupation
6	36	3.86
7	36	3.67
8	37	3.49
9	35	3.88
10	30	3.54
11	30	3.07
12	25	3.00

It would seem that senior high school pupils have a wider choice of occupations than have the pupils in the junior grades, but at the same time the difference does not seem very great. It appears that despite three years more of experience, grade XII pupils have not added very much to their knowledge of occupational opportunities.

From the last three tables we might conclude that we should give more consideration to helping pupils to choose their vocations, since older pupils, despite added education and more experience, do not seem to be any more capable of selecting a vocation than do younger pupils. These senior high school students need to be in a better position to select their work than younger students because they are nearer to the time when they must make their decision on their vocation, and, as will be indicated, our first job may have a serious effect on our ability to adjust ourselves to later employment.

No doubt part of the difficulty senior pupils have in choosing their work is due to the fact that they realize more clearly the difficulties to be faced in selecting one's vocation, but this further emphasizes the necessity of doing something to help these boys and girls. A valuable service will have been rendered by this book if students get some idea of the things to be considered in looking for their vocations, and if a study of the occupations described in this book helps them to understand some of the aspects of employment in our modern society.

Learning About New Occupations. We have seen what Alberta students would like to do in order to earn their living. There were only 82 different jobs chosen by 815 students. Are there many more jobs from which they might choose their vocations? Yes indeed, there are hundreds of others. How then can we increase our knowledge of occupational opportunities? We should make good use of libraries and periodicals. There are many books on occupations; magazines frequently include short articles on occupations; many daily newspapers have short articles on vocations written by experienced men.

A good way of discovering the names of occupations is to look at a census report dealing with occupations and industries. For instance, Volumes VI and VII of the 7th Census of Canada would give you the names of many occupations found in Canada, Alberta and the other provinces. From other census reports you could obtain information about average salaries of employees. The Canada Year Books give much interesting information about Canadian occupations. There are also many publications issued by the Dominion Bureau of Statistics which would be useful; for instance there are reports on the R.C.M.P., fisheries, railways, dairies and so on. Many of these reports are published annually.

Reference will be found in later chapters to many different occupations. As it is impossible for us to deal with each of these, we have included the names of several vocations in the tables which are included in each chapter, so that students may realize what are some of the occupations found in each occupational group.

CHAPTER III

THE ALBERTA SCHOOL SYSTEM AND ITS RELATION TO LIFE WORK

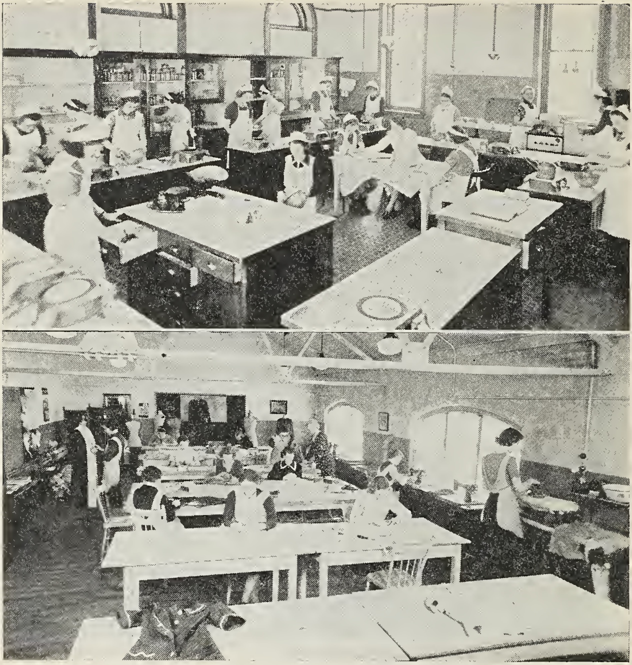
Recently educational authorities have reorganized the Alberta program of studies. In the past, education was divided into two sections, known as the elementary and the high school divisions. The elementary school included grades I to VIII, and the high school included grades IX to XII inclusive. Now these same grades have been divided into three major divisions. The Elementary School includes Divisions I and II or grades I to VI; the Intermediate School, grades VII, VIII and IX; and the Senior High School, grades X, XI and XII.

Considerable reorganization also appears in the senior high school itself, in that it offers a general education as well as specific preparation for university or normal school training. Approximately 35 units constitute a full year's work. A student writes an examination at the end of Grade XII. If he passes this examination, has obtained credit for 100 units and has *3 years of English and Social Studies and 1 year of Health and Physical Education,* he is granted a High School Diploma.

Selecting Your Subjects

Now it may be that a student desires a diploma for a special purpose. If this be the case he must be careful to select the options which will give him credit for those courses which will enable him to carry on with his special educational program.

(a) Certain students will desire to go to normal school to obtain certificates permitting them to teach in the elementary and intermediate schools. Such students



Edmonton Technical High School

Upper: Kitchen. *Lower*: Sewing room.

should choose the following subjects: English 1, 2 and 3; Social Studies 1, 2 and 3; Algebra 1; Geometry 1; Physics 1; Chemistry 1; Health and Physical Education 1; Biology 1 or 2; Art 1; Music 1 and 7 options.

(b) Other students may desire to enter university. These students must obtain matriculation standing. But since there are several faculties in the university, matriculation necessarily varies from faculty to faculty.

For details relating to matriculation requirements, and length and costs of university courses, see appendix C, page 438.

A Commercial Class of Typists at Work

Practice and the correct method of teaching are necessary to attain speed and accuracy in Typing. Many Business Firms require the services of skilled Typists, who are well paid.
By courtesy of Garbutt Business College Limited, Calgary.

(c) There are two methods of obtaining a commercial certificate:

(1) If you wish to obtain both the High School Diploma and the Commercial Certificate you must take four years of senior high school education, and must include the proper commercial subjects in your program of studies.

(2) If you desire only the Commercial Certificate you must have two years of senior high school education and one year of purely commercial work.

(d) Arrangements similar to those in (c) above are made for technical school students.

Grade IX and the Senior High School

All students follow the same program of studies to the end of grade IX. At the end of this grade, students are given an examination to test their mastery of the material of the elementary and intermediate school subjects. The result is a pass or fail in the whole examination. If the student passes he goes on to the senior high school; if he fails he must repeat the work of grade IX for another year. Educational guidance is attempted at this point in the student's school life. This guidance is based on three things. A confidential report on each student is sent to the Department of Education by the principal of each school. A general psychological test is written by each student as part of his grade IX examination. The confidential report and the results of the psychological test are considered along with the results of the examination on the grade IX school subjects. These students are then given certificates of rating, A, B or C if they pass, or they are failed.

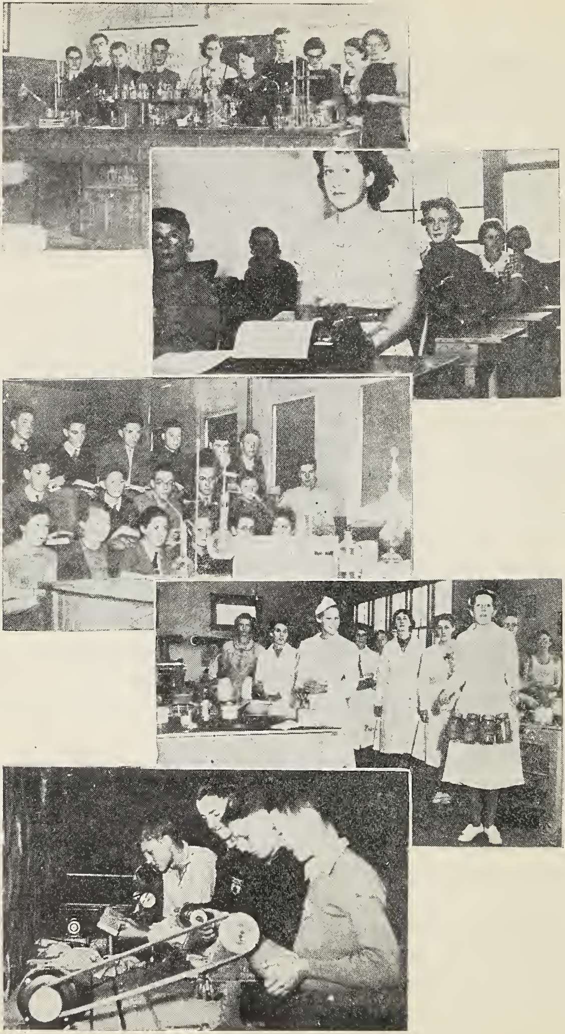
A pupil who is given an "A" has shown to the examinations board that he has mastered the material required of grade IX pupils, and so will be permitted to select his courses from any of those offered in the high school grades of his school. He may select his options as he wishes, provided they conform to the requirements of the type of diploma which he is seeking. He may carry a full quota of subjects each year, thus giving him the opportunity of completing the work of the senior high school in three years.

A pupil who has a "B" certificate has been judged by the examinations board as being a little less capable of handling the full course of studies for each senior high school year and so is required to reduce his program by one course a year. If he wants senior matriculation he is required to take one less subject than the normal number each year and to spread his course over a four year period. However, if he desires only the High School Diploma he can still obtain it in three years.

A pupil who is granted a "C" class certificate must, if he proceeds, enroll in the high school for English, Social Studies and Health. In view of the fact that he has not mastered the content of the early grades, which is basic to matriculation and normal school courses, his registration is restricted to the general course. He is not entirely prevented from taking matriculation or normal school courses provided that he repeats the work of grade IX and then obtains an A or B certificate. If he chooses to go on to senior high school work with the C grade certificate he is restricted in the choice of his options. Such students may choose general courses, such as general mathematics, general science and certain easier courses in commercial and technical departments, but it must be noted that registration in courses such as Algebra 1, Geometry 1, French 1, Physics 1, Latin 1 and Chemistry 1 is not permitted.

Students who fail must repeat the work of grade IX and obtain a higher standing at the next examination before they will be permitted to carry on with the work of the senior high school.

Provision is made for the exceptional grade C student to transfer to grade A or B standing. If during his high school career he shows such improvement in standing that, in the opinion of his principal, he would do satisfactory work in the academic options, he may be allowed



HANNA HIGH SCHOOL CLASSES AT WORK
Photos by courtesy of Jack Long, Hanna, Alta.

henceforth to choose his options in the manner of grade A or grade B pupils. It is unlikely that such a student would be able to obtain senior matriculation in three years because of the fact that he will probably have to pick up certain necessary options which he was not permitted to take as a grade C pupil.

Now it is important to notice that one of the main objects in drawing up this new program of studies was to attempt to give a course in secondary education which would be of profit and interest to the great majority of students who desired to obtain more education but who did not want to spend time taking subjects which would prepare them only for advanced work at university or normal school. For this reason, then, a general course was prepared for these students. Another fact that must be clearly understood is this, that pupils with A *or* with B *or* with C class certificates may take this general course which leads to a High School Diploma, or, in other words, the course leading to this latter diploma is *not* restricted to students with a class C certificate.

In view of the fact that only a limited number of students are interested in university education, it was thought inadvisable to include matriculation requirements for the University of Alberta at this point. Students who are interested in knowing what subjects are required for certain faculties will find the matriculation requirements in appendix C, page 438.

Lengths of time required for the courses and the fees are also given in this appendix.

CHAPTER IV

CHANGES IN THE WORKING WORLD

Let us now see what changes have occurred up to the present in the worker's world in Alberta and in Canada. It will, of course, be possible to deal with only a few of these changes, but such a discussion will indicate how the working world has been changing in the last few years. We shall see what changes have occurred in our total population and in our working population. It should be of interest to see what proportion of our workers are employers, employees, workers on their own account and unpaid family workers. What changes have occurred in the age distribution of our working population? What changes can be observed in the proportion of workers in each industrial group and in each of a few selected occupations? What new industries are being developed, and how many workers do they employ? Are there any

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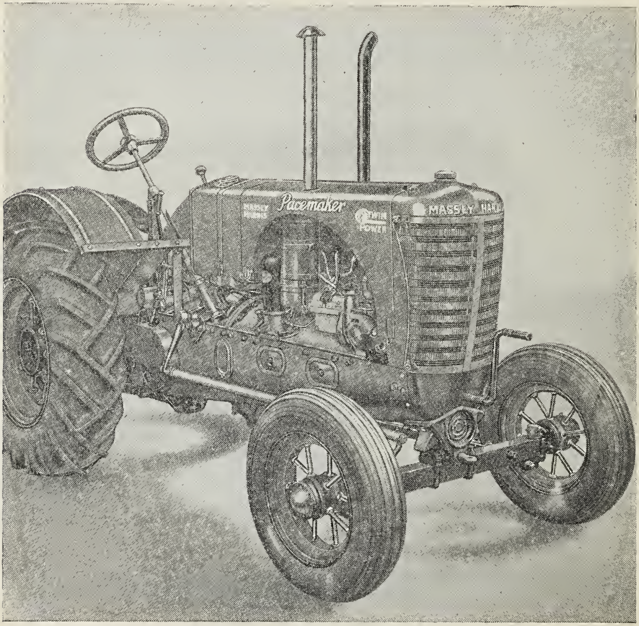
more hazards and dangers from employment in some occupations than in others? What are some of the causes of unemployment and what factors might cause employment maladjustments? These are some of the problems which will be treated in this chapter.

All of the above problems are relative to a successful selection of one's vocation, for the choice of a life work is somewhat limited by the fact that some occupations are overcrowded with trained workers. Some occupations are declining in importance and are requiring fewer workers each year. On the other hand some occupations are in a healthy state of growth.

Some Definitions. Before going on to consider some of the topics outlined above it is necessary to consider a few definitions. These definitions should be carefully studied and borne in mind as one reads the following pages. An *occupation* is a particular type of work, a calling or a craft, and includes all persons doing the same work. An *industry* is a production-unit, and employs workers of different occupations. Industries and occupations are often described by the same words, but *they do not include the same group of workers.* Let us illustrate this by considering the differences in meaning of the term "manufacturing" as applied to an *occupational* classification or an *industrial* classification. *Occupationally,* manufacturing includes only those persons concerned specifically in the making of some particular product; *industrially,* it includes *all* persons engaged in factories, whether factory hands, clerks, salesmen or engineers. In an occupation group all carpenters, plumbers, painters, and brick and stone masons are in the *construction* group; in an industrial group some of them are employed in transportation, manufacturing, service and trade establishments. In an industrial classification there is no clerical group, since stenographers, cashiers and bookkeepers are distributed throughout the various industrial groups; in an occupational classification a clerical group appears, since the term clerical includes several *occupations.*



One of the Latest Model Tractors With Pneumatic Tires

The Canadian Census reports use the following industrial classification: agriculture, fishing and logging, mining, manufacturing, construction, transportation, trade, finance, service and electric light and power. The occupational classification includes each of the above and also clerical. The above classifications will be used in this book in order to use census data. A study of the number of workers in each industry and occupation group will serve two purposes. It will indicate the competition one may expect in attempting to get a job, and it will give an idea of our modern social-economic set-up.

The following definitions are taken from Volume VII of the 7th Census of Canada:

(1) A *gainful occupation* is an occupation by which the person who pursues it earns money, or money equivalent, or in which he assists in the production of marketable goods.

(2) An *employer* is a person who engages others in the conduct of his own business; the term does not include managers, superintendents, etc., who may hire other employees but who do not own the business in which they themselves are employed.

(3) A *person working on his own account* is one who does not employ others in carrying on his own business.

(4) A *wage-earner* is one who works for a salary or wage, including the person on commission or piece-rate payment.

(5) *Unpaid family workers* are those who are employed on work which contributes to the family income; e.g., farmers' sons and daughters; such workers do not receive regular pay.

It should be noted that children working at home merely on general household work or chores, or at odd times on other work were not registered in the census as being gainfully employed.

Some Further Definitions. The following definitions should be noted as being of value in such a study as this:

(1) The term *vocation* refers to those occupations which require that the individual has some particular qualification which enables him to do a special kind of work.

(2) A *trade* or *craft* is a manual skill which requires special training. The skill refers to a limited range of activities.

(3) *Clerical work* is a skilled vocation dealing with the keeping of records and routine business transactions.

(4) *Business* refers to buying and selling.

(5) A *profession* is a vocation in which the individual gives advice for a compensation. He is able to give this advice by reason of his special knowledge along certain lines.

(6) A *journeyman* is a qualified artisan who works for another individual.

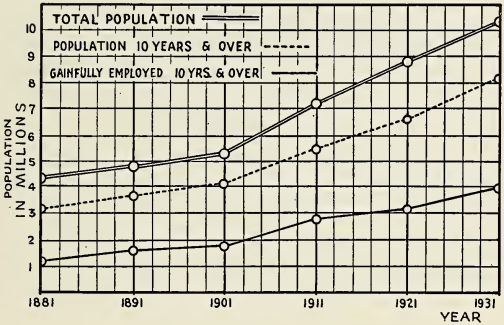
Some Population Changes. Table XI indicates the changes in Canadian population between 1881 and 1931. The same information is pictured graphically.

TABLE XI

Population of Canada in Census Years 1881 to 1931

Year	Total Population	Population 10 Years and over	Gainfully employed 10 Years and over
1881	4,306,118	3,611,882	1,377,585
1891	4,801,071	3,611,822	1,606,369
1901	5,318,606	4,063,943	1,782,832
1911	7,179,650	5,514,388	2,723,634
1921	8,775,853	6,671,236	3,173,169
1931	10,362,833	8,159,059	3,927,230

Canadian Populations, 1881-1931



The graph clearly shows that the total population has increased slightly faster than the population 10 years of age and over, and much faster than the number of gainfully employed persons 10 years of age and over. This would seem to indicate that modern methods of production make it possible to supply the necessary goods with a smaller proportion of workers than has been the case in the past. This would mean that production has increased more rapidly than employment in production. The total population increased 140% in this period, while the gainfully employed population increased 185%.

A study of census reports reveals the following facts:

(1) The number of gainfully employed males in Alberta has increased faster than the number in Canada.

(2) The number of female gainfully employed in Alberta has also increased faster than the number in Canada.

(3) The percentage increase in the number of female workers is greater in both Alberta and Canada, than is the percentage increase in the number of male workers.

The number of gainfully employed males in Canada increased 38% in the period 1911 to 1931, while the increase in Alberta was 69%. The percentage of increase in the number of gainfully employed females in Canada in the same period of time was 83, while in Alberta the increase was 180.

Table XII shows the percentage of all gainfully employed persons who were women workers in Alberta and Canada in 1911, 1921 and 1931. Notice that there has been a steady increase in the proportion of gainfully employed females in both Canada and Alberta, but that the percentage of female workers in Canada is consider-

TABLE XII

Per Cent of Gainfully Employed Female Workers, in Alberta and in Canada, 1911, 1921, 1931

Year	Alberta %	Canada %
1911	7.4	13.4
1921	9.8	15.4
1931	11.7	16.9

Source: Adapted from Census reports of Canada.

ably higher than it is in Alberta. Indeed, the table indicates that the *percentage of female workers in Alberta in 1931 was not even as high as was the percentage in Canada in 1911.* But, remember that the *proportion of female workers in Alberta is increasing faster than it is in Canada.*

Changes in Numbers Gainfully Employed in Occupation Groups. Let us now see what changes have occurred in the proportions of men and women engaged in the various occupation groups in the period 1891 to 1931. Table XIII indicates the number of male and female workers gainfully employed in each occupation group in Canada in 1891 and 1931, and the percentage increase in the number of workers in each group in the period 1891 to 1931.

TABLE XIII

PER CENT INCREASE IN THE NUMBER OF GAINFULLY EMPLOYED MEN AND WOMEN IN EACH OCCUPATION GROUP FROM 1891 TO 1931

Occupation	Male 1891	Male 1931	Increase %	Female 1891	Female 1931	Increase %
Agriculture	723,013	1,107,766	53	12,194	24,079	98
Fishing, logging	42,597	91,403	114	204	497	142
Mining	15,410	58,585	280	....	6	....
Manufacturing	175,861	390,477	122	62,111	84,660	36
Construction	86,605	202,970	134	89	96	8
Transportation	60,326	275,590	356	1,089	25,435	2230
Trade	78,030	259,799	233	6,930	54,113	680
Finance	3,100	36,252	1070	4	571	1430
Service	87,533	270,573	210	116,259	346,900	198
Professional	34,442	103,723	201	25,092	117,219	368
Clerical	21,029	141,191	571	3,092	117,498	370
Total population	2,444,312	5,366,502	120	2,356,759	4,996,331	112
Total number gainfully employed	1,412,386	3,261,371	130	203,222	665,859	228

Source: Adapted from Canadian census reports.

What are the outstanding employment changes indicated in Table XIII?

(1) Notice the great increase in the number of females engaged in transportation, and the number of men in finance.

(2) There was a great increase in the number of male and female clerical workers.

(3) The number of professional workers also showed a large increase.

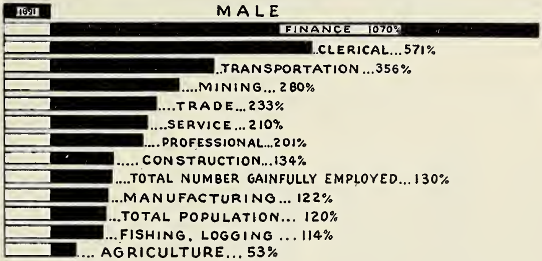
(4) All of the above percentage increases should be compared with the percentage increases in the total population and with the total gainfully employed population.

(5) A study of Table XIII would indicate that there has been a greater percentage increase of "brain-workers" as compared with manual workers.

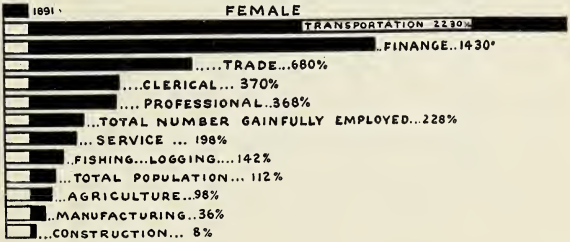
(6) It appears that there are more women workers in Canada than there formerly were. The same is also true of Alberta. In 1931 approximately 48% of the total population of Canada 10 years of age and over was female; in Alberta 44% were women. Approximately 17% of all females 10 years of age and over in Canada were gainfully employed; in Alberta 12% were gainfully occupied.

The information in Table XIII is adapted to a bar graph to show more clearly the relative changes in the various occupation groups.

Percentage increase in male employment in Canada in 1931 as compared with employment in 1891.



Percentage increase in female employment in Canada in 1931 as compared with employment in 1891.



To read the above graphs, compare the length of the bar representing 1931 with length representing 1891. Thus, in female employment the length of the bar for employment in agriculture is about double the 1891 base, indicating that employment practically doubled between 1891 and 1931. Compare the length of the bar for 1931 transportation with the 1891 base.

Changes in the Number of Persons Gainfully Employed in a Few Selected Occupations. The following table shows the percentage increase in female employment in a few occupations in Canada in the period 1921 to 1931.

TABLE XIV

NUMBER OF GAINFULLY EMPLOYED FEMALES IN ALBERTA AND IN CANADA IN 1931 AND THE PER CENT INCREASE BETWEEN 1921 AND 1931

Occupation Group	Canada No.	Canada % increase	Alberta No.	Alberta % increase
Barbers, hairdressers	6,743	920	466	1270
Cooks	7,818	81	447	117
Domestic servants	138,741	78	7,133	103
Dressmakers, seamstresses	13,958	–29	446	3
Housekeepers, matrons	25,787	11	2,305	42
Musicians, music teachers	4,641	8	243	33
Nurses, graduate, training	31,898	51	1,948	81
Office employees	118,231	31	5,486	27
Saleswomen	45,283	28	2,086	51
Teachers—school, dancing, physical training	64,950	30	4,580	50
Telephone operators	14,373	12	576	27
Waitresses	12,797	100	1,062	79

Source: Adapted from Vol. VII, 7th Census of Canada, 1931.

A few striking features of the above table are:

(1) The decrease in the number of dressmakers in Canada.

(2) The very large increase in the comparatively new occupation of hairdressing.

(3) There was a larger per cent increase in each of the above occupations in Alberta than in Canada, except in the cases of office employees and waitresses.

(4) In the same period of time remember that the increase per cent in the number of gainfully employed females in Canada was 36, and in Alberta 58.

The next table gives the same information for the number of gainfully employed males in Alberta and in Canada.

TABLE XV

NUMBER OF GAINFULLY EMPLOYED MALES IN CANADA AND ALBERTA IN 1931 AND THE PER CENT INCREASE BETWEEN 1921 AND 1931

Occupation Group	Canada		Alberta	
	No.	% Increase	No.	% Increase
Bakers	9,551	57	371	63
Barbers	16,368	50	993	40
Clergymen	12,662	9	890	23
Compositors, printers	10,325	26	420	11
Cooks	17,832	56	1,591	28
Dentists	4,007	28	230	23
Designers, draftsmen	4,596	44	97	15
Farmers, stock raisers	617,321	–3	90,096	12
Farm laborers	478,632	25	52,204	65
Foremen—manufacturing	16,686	47	348	130
Hotel, restaurant keepers	15,164	54	1,457	56
Insurance agents	17,049	77	890	35
Lawyers, notaries	8,004	12	544	2
Office employees	164,139	29	8,225	18
Physicians, surgeons	9,817	15	572	7
Professional engineers	15,818	23	676	–7
Salesmen	102,082	37	5,728	40
Teachers — school	18,274	65	1,833	61
Waiters	11,203	125	1,059	105
Building[i]	90,694	26	4,237	63
Railway transportation[ii]	27,036	–4	2,373	3

[i]—includes brick and stone masons, carpenters, foremen and plasterers and lathers.

[ii]—includes brakemen, engineers, firemen and conductors.

Source: Adapted from Vol. VII, 7th Census of Canada, 1931.

We can not draw attention to all the interesting facts to be noted in the above table, but we will point out a few. A study of the table will reveal others.

(1) Note the decrease in the number of farmers and stock raisers and the number engaged in railway transportation in Canada, and the decrease in the number of professional engineers in Alberta.

(2) Note the much larger per cent increase in the number of male teachers in both Canada and Alberta as compared to the per cent increase in the number of female

teachers. (*It is interesting to note that only one boy who answered the questionnaire discussed in chapter II indicated a preference for teaching, and this was his second choice.*)

(3) Note the difference in the percentage increase in the number of clergymen in Canada and Alberta, 9% as compared with 23%.

(4) Notice the large percentage increase in the number of farm laborers in Alberta. It would appear that, whereas formerly men engaged in agriculture tended to become owners, similar opportunities are now lacking, with a resultant increase in the number of employees.

(5) The largest percentage increase in Alberta was among foremen in manufacturing. This increase would seem to be significant, in that it indicates a trend toward greater industrialization in Alberta. Remember, of course, that even in 1931 the number of foremen was very small.

(6) Note the relatively small percentage increases in the numbers of dentists, physicians and surgeons, and lawyers; and the actual decrease in the number of professional engineers in Alberta.

(7) There was a large per cent increase in the number of both male and female waitresses.

(8) Remember that at the same time the above changes were taking place the number of gainfully employed males in Canada increased 22%, and in Alberta 30%.

Age of Workers. The following table shows how the gainfully occupied population 10 years of age and over in Canada in 1921 and 1931 was distributed according to age, and the per cent increase in each age group in the period 1921 to 1931.

TABLE XVI

DISTRIBUTION OF GAINFULLY EMPLOYED IN CANADA BY AGE GROUPS AND PER CENT INCREASE IN EACH AGE GROUP, 1921-1931

Age group	1921 No.	1931 No.	Increase %
10-15 years	73,208	52,630	38 (decrease)
16-19 years	346,616	409,260	18
20-24 years	450,328	618,354	37
25-34 years	775,547	914,962	18
35-64 years	1,389,565	1,750,878	26
65 years and over	137,905	181,146	31

Source: Adapted from Volume VII, 7th Census of Canada, 1931.

Notice the decrease in the percentage of gainfully occupied persons between the ages of 10 and 15 and the relatively small gain in the number of workers between the ages of 16 and 19 years. This seems to suggest that one should get as much schooling as one can before attempting to enter the occupational world. The relatively small increase in the number of workers between the ages of 10 and 19 is compensated for by the large increase in the number of gainfully employed between the ages of 20 and 24. The above table would also suggest that, despite the fact that attendance at school is compulsory up to 15, more students are now staying at school after they have passed age 15 years. The greatest increase in the actual numbers of persons engaged occurred in the age group 35-64, although the per cent increase in numbers in this age group was less than in the group 20-24 years.

The next table compares the percentage increase in the total population in certain age groups with the percentage increase in the gainfully employed population in the same age groups in Canada in the period 1921 to 1931.

TABLE XVII

PER CENT INCREASE IN POPULATION IN CERTAIN AGE GROUPS IN CANADA DURING THE PERIOD 1921-1931

Age group	Total population % increase	Gainfully employed population % increase
10-15 years	19	38 (decrease)
16-19 years	31	18
20-24 years	28	37
25-34 years	12	18
35-64 years	23	26
65 years and over	37	31

Source: Adapted from Volume VII, 7th Census of Canada.

A study of the above table reveals that the population of workers 20 years of age and over has increased faster than the total population. The fact that the proportion of workers under 20 years of age has not increased as rapidly as the general population under 20 years of age indicates that workers are entering the occupations at a later age than they were doing in the past. The fact that the percentage increase in the number of workers 65 years of age and over was not as large as the percentage increase in the total population of the same age might be partly accounted for by the introduction of old-age pensions.

It appears that younger workers, trained for certain occupations, will be delayed waiting for the older employed men to retire, since there is a larger percentage increase in the number of older than of younger workers. Workers in such occupations as teaching, music, dentistry, medicine, clerical and selling are affected to a greater extent than are workers in other occupations. For instance, younger men seem to be in more demand for much of the factory work because they are more adaptable to changes in machinery, are more capable of working at high speeds and are less subject to injury from the fast-moving machinery. This means that in many of the manufacturing industries a man of about 50 years of age is in danger of losing his work, and so may become permanently unemployed or else be forced to accept less desirable work at a lower rate of pay.

The following table shows the percentage of wage-earners in each age group in Canada who were unemployed on June 1, 1931. Notice that there was not a great deal of difference in the percentage of unemployed in each age group. The greatest percentage of unemployment was found among those workers who were over 55 years of age. Apart from the age group 35-44 years there seems to be practically a steady increase in the percentage of unemployment in successive age groups.

TABLE XVIII

PERCENTAGE OF UNEMPLOYED IN CANADA ON JUNE 1, 1931, IN EACH AGE GROUP

Age group	Total wage-earners No.	Wage-earners unemployed No.	Wage-earners unemployed %
16-17 years	103,827	17,401	17
18-19 years	184,610	33,063	18
20-24 years	482,825	84,512	18
25-34 years	671,748	121,838	31
35-44 years	497,245	85,272	17
45-54 years	361,331	68,683	19
55-64 years	179,641	39,369	22
65-69 years	43,277	11,123	26
70 years and over	25,384	6,204	24

Source: Adapted from Vol. VI, 7th Census of Canada, 1931.

Employment Status. Employment status refers to the position a worker holds in his occupation, i.e., whether he is an employer, employee worker on his own account or unpaid family worker. The following table shows the percentage of men engaged as employers, workers on their own account, wage-earners and unpaid family workers in Canada, 1931.

TABLE XIX

Employment Status of Canadian Male Workers, Classified by Occupation Group, 1931

Occupation	E. %	O.A. %	W.E. %	N.P. %	Total %
Agriculture	26.17	30.35	18.10	25.38	100.00
Fishing, hunting	4.19	68.84	21.89	5.08	100.00
Logging	3.72	1.34	94.28	0.66	100.00
Mining	0.88	4.62	94.43	0.07	100.00
Manufacturing	4.87	7.12	87.47	0.54	100.00
Construction	5.71	13.18	80.71	0.40	100.00
Transportation	1.99	5.22	92.41	0.39	100.00
Trade	15.20	21.00	62.47	1.33	100.00
Service	5.64	16.28	75.77	2.31	100.00
Professional	2.30	22.55	70.80	4.35	100.00
Personal	9.87	14.26	74.81	1.06	100.00
Finance	5.65	19.84	74.51		100.00
Clerical		0.02	99.69	0.30	100.00

E.—Employer; O.A.—Workers on own account; W.E.—wage-earners; and N.P.—unpaid family workers.

Source: Volume VII, 7th Census of Canada, 1931.

How do we read this table? Let us consider the construction industry. The table tells us that of *all men engaged in construction* 5.71% were employers, 13.18% were workers on their own account, 80.71% were wage-earners and 0.40% were unpaid family workers. Notice that 99.69% of the men engaged in clerical work were employees or wage-earners, while only 62.47% of men engaged in trade were employees, and only 18.10% were wage-earners in agriculture. It thus appears *that some industries offer greater opportunities for men to become employers or workers on their own account than do others.*

Table XX gives the same information for female workers. Again notice the high percentage of women who are wage-earners in the transportation industry and clerical work, and the low percentage in agriculture, and the relatively low percentage in professional service.

TABLE XX

EMPLOYMENT STATUS OF FEMALE WORKERS IN CANADA IN 1931 IN OCCUPATION GROUPS

Occupation	E.	O.A.	W.E.	N.P.	Total
Agriculture	60.21	19.51	6.93	13.35	100.00
Manufacturing	0.38	9.54	89.03	1.05	100.00
Transportation	0.17	0.02	99.71	0.10	100.00
Trade	3.80	7.72	84.49	4.00	100.00
Service	0.56	10.66	78.01	10.76	100.00
Professional	0.11	11.36	68.65	19.88	100.00
Personal	0.79	10.30	82.81	6.10	100.00
Finance	0.70	21.02	78.28	–	100.00
Clerical	–	0.19	99.32	0.49	100.00

(Abbreviations as on table XIX).
Source: Volume VII, 7th Census of Canada, 1931.

It is interesting to note that approximately 18% of all female workers are engaged in professional work, while less than 4% of all male workers are in the professions. Less than 9% of all male workers are engaged in service, while 52% of all female workers are engaged in some one of the several branches of service.

Complexity of Modern Industrial Organization. A study of census reports will indicate that the number of different occupations is constantly increasing. Another feature is the *increasing dependence of one occupation on others.* This fact is due to the increasing amount of specialization among workers. The economic machine, then, is becoming more and more complex with the result that there are many more things that may throw it out of gear than was the case in former days. This means that more care and attention must be given to the operating of the economic machine, and also implies that future citizens must be more carefully trained in the ways of modern civilization. This, then, is one reason why *students should obtain as much schooling as they can*, so that they, as adult citizens, can take their part in efficiently organizing and administering social organization.

New Occupations. It is said that technological changes are causing much of our unemployment. However, it must also be admitted that these same changes are frequently opening up new fields of employment. Hence while employment in some occupations is decreasing, in others it is increasing, or is being found in entirely new work. Only a few of the fairly recent occupations and the number of employees in each can be indicated here. Some of the new industries include electrical machinery and supplies, automobiles, rubber tires and tubes, rayon, manufactured ice, aluminum and nickel, typewriters, mechanical refrigerators, cash registers, aeroplanes, radios and motion picture apparatus. Let us look at one or two of these in a little more detail.

Suppose we consider the automobile industry. What employment is due to the invention and improvement of the automobile? The following table indicates a few types of employment caused by the development of the automotive industry, and also shows how many employees were absorbed by these occupations in Canada in 1934.

Occupation	Employees No.
Automobile manufacturing	9,674
Automobile supplies	5,172
Automobile accessories, fabrics	117

Source: Canada Year Book, 1937.

The following information is taken from Volume VII of the 7th Census Report of Canada, and relates to the number of gainfully employed engaged in work which has developed along with the automobile.

Gainfully employed in Canada in 1931	No.
Manufacturing automobiles, cycles, aircraft	21,350
Tire building and tube making	1,114
Retail dealing in automobiles and accessories	11,158
Automobile repair service	15,955
Automobile garages	28,667
Taxicabs, livery and bus service	12,434
Filling stations	5,930

From this it should be clear that the development of the automobile industry has given rise to many new occupations. It is altogether likely that there have been further large increases in certain of the above occupations even since 1931, as, for instance, in bus service.

There were 20,592 men and women engaged in the manufacturing of electrical apparatus in Canada in 1931. There were 3,400 dealers in electrical supplies, and 1,805 gainfully employed in electrical repair service. Then, too, there would be many persons engaged as radio announcers and radio engineers.

And so it would be possible to go on enumerating new occupational opportunities, but this will be sufficient to indicate the number of employees in some of these newer fields, and to indicate the importance of new inventions in developing new occupations. The importance of technological advances and the possibilities of new changes should be kept in mind when one is looking for one's life work.

Occupational Hazards. Some occupations are harmful to physical health, others to mental wellbeing; some are dangerous to life and limb. Some occupations are relatively more dangerous than are others. Some offer more opportunities for offsetting the dangers to health than do others. There are several sources of danger to one's health, varying with the industry. In the first place some industries deal with poisonous substances. Lead poisoning is a common disease found among workers employed in the manufacture of white lead. Employees in the dye and paint industries may be affected by the arsenic which they handle. Employment in match factories frequently results in "phossy jaw," a disease caused by the phosphorus used in manufacturing matches. In the second place danger arises from excessive dust in the air. This danger is found in coal mines and in machine shops which do a large amount of metal grinding. A third danger arises from sudden changes of temperature and pressure. Steel workers are easy victims of pneumonia in the winter months. Underground miners are sometimes affected by changes in the air pressure.

The following quotation paints a very graphic picture of some of the dangers of employment in certain industries. "In order that the consumer may rest peacefully on an artistic brass bedstead, some brassfounder may have had to suffer those malaria-like attacks of chills and sweats which are caused by the inhalation of zinc fumes. The pleasure of our morning ablutions is hardly increased by reading Dr. Hamilton's report that 36% of the enamellers and mill hands in ten sanitary-ware factories were found to be suffering from chronic lead poisoning. Breakfast is not more palatable if we realize that 1 out of every 12 men and 1 out of every 7 women, in white-ware potteries, in the manufacture of art and utility ware, and in tile works are 'leaded' every year because of the lead glaze used. To appreciate the real cost of some of our clothing and house furnishings we should visit a cotton mill or a woolen mill, experience the soreness of the lungs that comes from staying a brief time in the sorting and carding rooms, and enter the humid and superheated atmosphere of the spinning and weaving rooms. We should then be less surprised that the factory people, who have stayed in this environment from their childhood up, have such a pale, washed-out appearance, and that they are particularly subject to tuberculosis.

"The manufacture of felt and derby hats is not only a very dusty trade, as it is still conducted in most factories, giving rise to a higher death rate from tuberculosis even than among textile workers, but several branches of it involve danger of poisoning from cyanide of mercury with which the fur is treated to increase its felting properties. The manufacture of rubber footwear, rubber clothing and dipped goods involves contact with several dangerous poisons: lead, anilin, naphtha, carbon disulphide, carbon tetrachloride and benzol. There are said to be 42 different hazards in the tanning of leather to make shoes, gloves or anything else—a loathsome and often fatal germ disease called anthrax, and many different chances of poisoning from chemicals.

"The printing trade was one of the earliest products of modern invention, and has made wonderful progress with the introduction of the linotype and monotype in the last 30 years. The benefits which it has conferred on the human race are incalculable. It has been the chief lever for advancement in almost every direction. Yet it is an unhealthy occupation, because of the lead dust and vitiated air that have been characteristic of most printshops. Lead poisoning of a slow insidious nature lowers the vitality of the printer and tuberculosis, in about half these cases, comes along to finish the job." (Taken from

The Labor Problem, Catlin, W. B., New York, 1926, (pages 106-107.)

The following table will give some idea of the number of fatal accidents in the various industrial groups in Canada in the years 1931 and 1935.

TABLE XXI

FATAL INDUSTRIAL ACCIDENTS IN CANADA, 1931 AND 1935

Industry	1931 No.	1935 No.
Agriculture	163	122
Logging	76	114
Fishing, trapping	40	37
Mining, smelting	158	170
Manufacturing	142	123
Construction	217	97
Electric light and power	44	24
Transportation	205	180
Trade	43	39
Service	97	65
Miscellaneous	3	1
Totals	1,188	972

Source: Canada Year Book, 1936.

The table indicates that there is considerable variation in the number of fatal accidents from year to year. Notice the large number of accidents in construction in 1931 and the comparatively small number in 1935. There was a total of 1,078 industrial accidents in Canada in 1936.

The next table gives a list of the causes of industrial accidents, and the number of fatalities for each cause in Canada in 1935.

Such factors as these relating to industrial diseases and accidents must be considered when one is looking for a vocation. Some trades are hazardous to life and limb, while others undermine the health of the workers. The United States Bureau of Labor Statistics listed no less than 700 dangerous trades. Gradually social legislation is attempting to better the working conditions of men and women engaged in these hazardous occupations, but much still remains to be done.

TABLE XXII

CAUSES OF FATAL ACCIDENTS IN CANADA, 1935

Cause	No.
Moving trains	254
Dangerous substances	162
Falls of persons	148
Falling objects	141
Animals	42
Other causes[1]	95

[1] This included 28 due to industrial diseases.

Source: Canada Year Book, 1936.

Before 1890 Germany had organized compensation laws to provide insurance against industrial accidents. Great Britain developed its system of compensation in 1897. The Workmen's Compensation Act first became effective in Alberta in 1918, when it applied to the mining industry, and later, in 1919, it included almost all other industries except agriculture, railroading and the operation of retail stores and offices. By 1928 only conductors and trainmen in the railroading industry were exempt from the Act. These acts attempted to standardize awards in such a way as to take into consideration both the seriousness of the injury and the former earning power of the injured worker. Premiums for this insurance are indicative of the relative dangers of the occupation, so that as the dangers of employment decrease the premiums will be reduced.

Most employees in trades and industries are protected by the Alberta Workmen's Compensation Act. Railway employees, except those engaged in the running trades are included in the benefits. Such employees as commission agents and domestic servants do not receive this protection. Full information may be obtained by writing to the Workmen's Compensation Board, Legislative Buildings, Edmonton, Alberta.

The following table indicates the amount of compensation paid by the Alberta Workmen's Compensation Board in 1921, 1930 and 1934. Here, too, there is considerable variation in the number of accidents in different years.

TABLE XXIII

COMPENSATION PAID BY THE ALBERTA WORKMEN'S COMPENSATION BOARD, 1921, 1930, 1934

Year	Total Compensation $	Accidents Reported No.	Accidents Compensated No.
1921	367,102	7,069	3,566
1930	762,795	12,607	6,091
1934	481,582	9,608	4,090

Source: Canada Year Book, 1936.

Some countries have also developed a scheme of sickness insurance, but this has not met with any great success in America as yet. Another plan that is receiving careful consideration is the question of old-age pensions. There is an old-age pension plan in effect in Alberta, subsidized by the Government. Besides the old-age pension plan there are old-age insurance schemes, in which the employees contribute to a fund which will pay them a monthly income when they retire from active service. Civil Servants can take part in such a plan. Some industrial firms provide opportunities for their employees to take part in such a scheme. There is not, however, a Dominion-wide scheme of old-age insurance for all workers. In recent years more attention has been paid to the question of insurance against unemployment, and some countries have organized such insurance plans.

Unemployment. For the average person, success in earning a living is the basic factor on which depends his economic welfare and general happiness. While the amount of his annual income determines to what extent he shall share in the goods and services of society, employment itself is a basic factor on which his economic welfare and happiness depend. Unemployment has a serious effect on a man's outlook on life. It is a direct threat to his health and happiness. Of course unemployment affects his standard of living, but it also affects his morale; it impairs his skill and damages his incentive and habits of work. It affects conditions in the home and in society in general. Both size and continuity of income are important factors in determining the degree of our happiness as members of modern society.

Types of Unemployment. Unemployment may be defined as the involuntary idleness of men and women who are willing and able to work. The problem of unemployment is not confined to one class of society; rather it pertains to practically all classes, juveniles, women, skilled tradesmen, the man over forty, the disabled man, the immigrant, etc. Four types of unemployment may be distinguished, namely, casual, seasonal, cyclical and technological. Casual unemployment refers to day-to-day changes in the labor market, as for instance, to the varying demands for labor among dock hands and longshoremen due to the presence or absence of ships in port. Seasonal unemployment refers to monthly and seasonal changes in the demand for labor. This may be caused, as in the clothing industry, by weather changes which affect increases or decreases in the demand for certain goods. The building trades, agriculture and lumbering are further examples of industries in which workers are affected by changing demands for labor because of seasonal changes in the work. A cyclical change in employment refers to long-time changes in the demand for labor. This type of unemployment may recur at intervals of several years and seems to be caused by alternating periods of prosperity and depression. Technological unemployment is due to the rapid invention of new machinery, to the frequent introduction of new industrial processes and to the elimination of processes which formerly required the services of a large or small number of workers.

Number of Unemployed. Unemployment is a very complex problem and varies greatly in the different occupations, industries and seasons, so that it is very difficult to estimate the average amount of unemployment. The following table is adapted from Volume VI of the 7th Census of Canada, and indicates the percentage increase in the number of unemployed men and women wage-earners in Canada and Alberta on June 1, 1931, as compared with the same date in 1921.

TABLE XXIV

Per Cent Increase in Number of Unemployed Wage-Earners on June 1, 1931, as Compared With Number on June 1, 1921, in Canada and Alberta

Sex	Per Cent Increase Canada	Alberta
Male	149	219
Female	96	211

Source: Adapted from Volume VI, 7th Census of Canada, 1931.

It can be seen from this table that the number of unemployed men and women on June 1, 1931, had increased a great deal over the number of unemployed wage-earners on June 1, 1921, and that Alberta workers suffered more in proportion than did wage-earners in Canada as a whole.

In Alberta, in the period June 1, 1930 to June 1, 1931 a total of 53,479 wage-earners suffered because of "no job" or "temporary lay-off". These men and women lost a total of 1,372,929 weeks of work, an average of 25.7 weeks per worker. Another way of stating this is that each wage-earner who lost any time, lost, on the average, about one-half of the working year.

Employment Maladjustment. Employment maladjustment may be due to such personal factors as intemperance, indolence, disease, old age, insufficient ability and training, and lack of the proper character and personality traits. Poor employment early in one's working life frequently has considerable effect on one's ability to adjust oneself to later employment. This would seem to be a very important reason for giving serious consideration to one's first job. Many workers are not happy in their occupations because they are not fitted for their jobs. Such individuals would be far happier and much more useful in some other occupation. Some workers are required to do the same job over and over again, hundreds of times a day. Now this type of employment does not affect some individuals, but it does affect others because they need a certain amount of variation in their work or it becomes monotonous, with a resulting effect on their happiness. Unsatisfactory methods of promotion may result in employment maladjustment. These causes of maladjustment may also develop into contributory causes of unemployment, so that one must consider such factors as the above when one is looking about for one's life work.

Causes of Unemployment. *Physical environment,* including such factors as floods, storms and droughts, may have an effect on the amount of employment to be found in the district which has suffered from the above conditions of weather. *Social environment* is another important factor in the problem of employment; thus, war has a disturbing effect on the labor market. Division of labor, or the performance by each worker of a single task in the production of certain articles makes it difficult to balance the demand for and the supply of labor. Changes in the methods of production frequently have a serious influence on employment of workers. These *technological changes* may seriously affect the older worker, since he may not be able to change readily to the new machine. Thus he may suffer from permanent unemployment or he may be forced to accept lower wages in some other occupation. One should keep in mind the fact that technological changes are apt to affect seriously some occupations in the near future. It is, of course, impossible to predict the changes that will occur, but we should consider the possibilities of changes in the occupations in which we are most interested. *Changes in the demands* of the consumers also affect employment. Several other reasons for unemployment might be given, such as layoffs by firms desirous of reducing costs, business failures, completion of a particular job, and closing of navigation in winter months. The above will, however, give some idea of what factors might cause unemployment.

Where are the greatest opportunities for employment to be found? Between 1891 and 1931 the urban population of Canada increased from 32% of the total population to 54%, so that greater opportunities exist in the cities. The reason for this is that the cities are the centres of industrial life. But remember too that *competition will be keener in the cities.*

The following table shows the percentage of all wage-earners in each occupational group who were not at work on June 1, 1921 and June 1, 1931, in Canada.

TABLE XXV

PER CENT OF WAGE-EARNERS IN EACH OCCUPATIONAL GROUP IN CANADA WHO WERE NOT AT WORK JUNE 1, 1921 AND JUNE 1, 1931

Occupation Group	Per cent not at work			
	Canada		Alberta	
	1921	1931	1921	1931
Agriculture	4.78	15.35	5.11	19.32
Fishing, logging	14.14	37.60	11.79	34.86
Mining	17.20	35.18	30.06	57.37
Manufacturing	12.33	17.46	9.62	21.42
Construction	15.92	29.24	18.72	39.37
Transportation	8.82	12.69	7.04	15.16
Commercial	5.31	9.43	4.84	11.07
Finance	3.24	4.77	2.83	6.27
Service	5.05	7.91	5.23	8.75
Professional	4.32	5.70	3.54	6.37
Personal	5.46	9.66	6.34	10.87
Clerical	5.29	8.48	4.57	11.95

Source: Volume VI, 7th Census of Canada, 1931.

When comparing the figures of unemployment in the above table remember that the number of wage-earners in Canada and Alberta had increased 30% and 39% respectively in the ten year period, 1921 to 1931.

You might notice particularly the following features of the above table:

(1) Whereas there was a greater percentage of unemployment in Alberta than in Canada in 1921 in agriculture, mining, construction, service and personal service, the percentage of unemployment in Alberta in 1931 was higher than it was in Canada in each occupation group except fishing and logging.

(2) Notice the relatively high percentage of unemployment in mining in Canada and Alberta in both 1921 and 1931.

CHAPTER V

AGRICULTURE

While the percentage of gainfully employed men and women in agriculture in Canada has declined from 48.8% in 1881 to 28.8% in 1931, it must not be thought that this is because of a lessening importance of agriculture. Other reasons may be found for this decrease. In the first place it must be noted that machines are replacing men. Then, too, many jobs that were formerly done by farmers have been taken over by the industries. Part of this decrease is probably accounted for by decreases in foreign markets for our farm products. Approximately 51% of the gainfully occupied men and women in Alberta are still engaged in some branch of agriculture, including such work as poultry and livestock raising, dairying, horticulture, nursery work, truck gardening, and raising and marketing grain products. The decrease in the number of agricultural workers is associated with a rise in

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the standard of living, since more workers are available for production of commodities other than food products.

Such a large number of people engaged in the same industry must naturally have many similar interests and needs, and so can not help but be a vital force in the social, political and economic life of the country as a whole. The economic welfare of the country in general is closely related to the prosperity of the farmer; although not entirely dependent upon his prosperity. Occupational opportunities in agriculture must be seriously considered when one is looking for an occupation.

The following table gives an idea of the number of workers in agriculture in Alberta in 1931 and a few of the occupations to be found in agriculture.

TABLE XXVI

Gainfully Employed Males and Females in a Few Branches of Agriculture in Alberta in 1931

Occupation	Male No.	Female No.
Farmers and stock raisers	89,686	2,341
Gardeners	405	7
Apiarists	9	
Foremen	410	5
Farm laborers	52,204	671
Total number in Agriculture	142,722	3,024

Source: Volume VII, Canada Census, 1931.

Farming

Farming offers opportunities to many types of men and women. Some people are happy when surveying fields or herds; others desire orchards, gardens or poultry houses. Our modern world requires the products of each of these types of farms.

Education. The farmer should have an education which will enable him to carry on his business successfully. The English courses offered at the school should prepare him for the needs of everyday life, enable him to read and so keep up with the latest developments in agriculture. They should also leave him with the desire to read articles and books outside of the sphere of agriculture, thus forming the foundation for the cultural side of individual, family and community life. Science courses should give him an idea of the value of the scientific method, so that he may be the more willing to apply such methods to his farm. Mathematics should enable him to keep accounts and so help him to manage his farm in a business-like manner. A student who thinks he will be a farmer and that he may not be able to go to school after Grade X, should try to include the following courses in his studies in Grades IX and X: farm and home accounting, junior business, general science and biology.

Hence, because a student is choosing farming for his vocation, he should not plan on leaving school as soon as possible; but rather, since he desires to farm he should get as much education as he can. In this way he is increasing his worth to society and increasing his chances of leading a happy life. One of the aims of any faculty of agriculture is to get more university graduates returning to the farm, to take with them those ideas which help to make for successful farming.

Persistency, ingenuity, initiative, organizing ability, good management, willingness to work, a liking for and the ability to repair machinery and a desire for an independent out-door life are some of the traits and aptitudes necessary for successful farming. Farmers need to be strong and healthy if they are to stand the heavy work which they will be required to do, and the long hours of work at certain seasons of the year.

The Work. The farm offers regular and steady employment along with a wide variety of work. The farmer's work is not bounded by four walls, nor is he jostled morning, noon and night by hurrying crowds. There is no weariness resulting from monotony of ill-ventilated factories and offices. A day's work may include the care and feeding of the farm animals, the sowing, cultivating or reaping of the crops, a quick trip to town for repairs, the repairing of some piece of machinery or the building of a new piece of equipment to take care of some peculiarity of the crop.

The hours of labor vary greatly with the season and with the type of farm. Mixed farmers are fairly busy throughout the year and particularly busy during seeding and harvesting, while grain farmers enjoy a considerable amount of leisure time in the winter months. Some farmers are restricted in their leisure activities all year by such chores as milking and feeding; others may be able to leave the farm for a short holiday.

It is very difficult to offer any information about incomes received by farmers. Yearly incomes vary with the locality, crop conditions, prices, and the farmer's ability and knowledge of his business. Then, too, incomes may vary with the type of farming that one is doing.

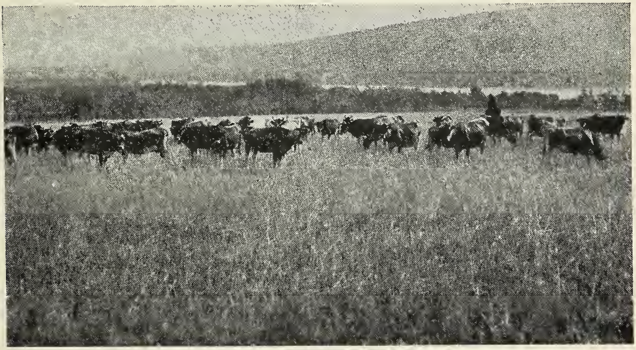
This is an agricultural country and Alberta needs many scientific farmers. Remember that 57% of Alberta's gainfully employed men are engaged in agriculture. Remember that farming offers an independent, healthful life. Do not dismiss farming too lightly when looking for an occupation, but rather give it very serious consideration. Of course it takes considerable capital to get started, but this is also true of many other occupations, particularly of the professions, which so many young men and women desire to enter. Success may depend upon one's knowledge of, and ability to carry on, several types of farming. There are, of course, many factors such as drought, hail and frost over which we have no control. These may offer serious handicaps to a successful year, but good management over a period of years in most cases will give a comfortable living and the opportunities of leading a happy life.

Sugar Beets. In the southern part of the province, centering about Lethbridge, Taber and Raymond, sugar beet raising is a very important type of farming. Beets are raised in the irrigated areas. Farmers may plant from 5 to 15 or 20 acres of sugar beets in addition to their grain. The successful raising of sugar beets requires a great deal of labor. The beets must be thinned soon after they appear above the ground. They must be cultivated and weeded during the growing season. If necessary, the land must be irrigated, and when the water is turned into a farmer's field he is required to work practically day and night until his fields are all irrigated. Finally the beets must be taken up, topped and hauled to the railway for shipment to one of the sugar factories. Sometimes the factories can not take the beets as fast as they are hauled to the railway, and then the farmer must put his beets into stacks, from which they will be hauled as the factory is able to take them. Crops average about 15 tons to the acre. The sugar beet farmers have contracts with the sugar company to crop a certain number of acres in beets.

In order to take care of the crop, two factories have been built near Lethbridge, one of which is at Raymond. These factories give employment to a large number of skilled and unskilled workers for several months of the fall and winter seasons. This is, then, a very important industry in Southern Alberta.

Ranching

A ranch hand is required to "ride the range fences", put up hay in the summer months, feed the stock in the winter, break saddle horses and help in the branding of the stock. Courage, dependability, a sense of humor and a strong, well developed body are necessary for this work. The owner or manager has the responsibility of organizing the work of the "hands" and managing the affairs of the ranch in such a way as to make it a financially sound proposition. He is particularly responsible for the buying and selling of stock. He should have all the qualities found in "the hands" and should also be congenial and able to meet people. An academic education would, then, be very useful for owners and managers. University graduates are in demand on some ranches for certain technical work. A course at one of the Agricultural Colleges would give specific training along necessary lines, and would enable one to manage a ranch in the best possible way. (See also the section dealing with the



Agricultural Professional, p. 305.) Practical experience is a necessary supplement to the theoretical training obtained at the University or the Agricultural College.

Men who have both the theoretical and practical training have successfully sought employment as stock detectives, community range bosses, or stock buyers. The demand for highly trained men is not very great at present in any of these allied fields, but specialists in animal husbandry and feeding and management should be able to obtain employment. Most ranching is done on the prairie lands and in the foothills. The work is seasonal, but the hours may be from daylight to dark for 6 and sometimes 7 days a week. On the whole, the out-of-doors nature of the work makes this a healthful occupation, but ranchers must be strong and healthy if they are to be able to do the work required of them.

Fur Farming

Opportunities. Fur farming does not offer any very great vocational opportunities for boys in Alberta. It is an occupation in which one must necessarily try to become an owner. There are several large fox farms in Alberta requiring the services of a number of men, but these farms offer very few desirable jobs. There are a number of small farms scattered throughout the province. On some of these one or two men do all the work. A few of the fox farms also raise miscellaneous fur-bearing animals. During the early stages of its development, and indeed until fairly recently, the chief source of income was the sale of animals for breeding purposes. However the industry now appears to be gradually becoming established on a pelt basis rather than a live animal basis.

Training for ownership or managership can be obtained by working on a large farm, where one may

TABLE XXVII

NUMBER OF FUR FARMS, VALUE OF FUR-BEARING ANIMALS, AND VALUE OF PELTS SOLD—1935

	Number of fur farms	Value of animals $	Value of pelts sold $
Quebec	2408	1,910,659	X
Ontario	1029	1,848,343	X
Alberta	463	1,085,050	X
Canada	7495	9,381,825	4,870,995

X. Data are not obtainable for each province.
Source: Canada Year Book, 1937.

acquire a good knowledge of the business. Employees doing the rougher work are usually paid from $10 to $30 a month and board. It is very difficult to give figures for incomes of owners. These vary greatly with economic conditions and with luck, care and management. There are some good positions for university graduates on experimental farms in the East.

The Work. Owners and managers are required to do the following work: (1) keep careful check on sanitation; (2) supervise feeding, care of the young and pelting operations; (3) treat diseases and handle epidemics; (4) keep breeding records; and (5) supervise and organize all the work on the farm.

The northern part of the province offers the best opportunities in Alberta. Many farms have been established in those districts which are near lakes. It is advisable to have the farm located near places where cheap meat can be obtained, as for instance, near packing plants.

This is a fairly healthful occupation which, for most workers and employees, requires long hours of labor every day in the week. It offers a chance for an experienced man with a small capital to start up a farm in a minor way. With good luck, good management and application of a thorough knowledge of the business, he can build up his farm in the course of a number of years to the point where it is a worth-while business.

CHAPTER VI

MANUFACTURING

While Alberta is mainly agricultural, still several types of manufacturing are being carried on in the Province. The following table gives an idea of the number of men and women wage-earners, the number gainfully employed in the various branches of manufacturing, and the names of a few of the occupations found in each of the branches.

By courtesy of Burns & Co. Limited, Calgary.

A LARGE ALBERTA PACKING PLANT
Lower picture shows plant as it is to-day and above is the same plant prior to the addition of a new abattoir section. This industrial plant employs several hundred men and women ranging from ordinary laborers to university trained technicians.

TABLE XXVIII

EMPLOYMENT IN A FEW BRANCHES OF THE MANUFACTURING INDUSTRIES IN ALBERTA IN THE YEAR ENDING JUNE 1, 1931

Occupation	Gainfully employed		Wage-earners	
	Male No.	Female No.	Male No.	Female No.
Vegetable foods	844	48	599	44
Drinks and beverages	105	2	74	2
Rubber products	78	1	48	......
Animal foods	951	57	897	57
Meat canners, packers	53	43	53	43
Butchers, trimmers	534	3	506	3
Milk factories and dairies	45	2	42	2
Furs and fur goods	31	27	21	27
Leather and leather goods	600	3	164	2
Boot and shoe makers and repairers	433	......	95	......
Boot and shoe repairers' apprentices	16	......	14	......
Harness and saddlery makers	99	......	45	......
Textile goods and wearing apparel	430	732	200	439
Sewing machinists in factory	5	174	5	174
Sewing machinists not in factory	......	114	......	76
Tailors and tailoresses	330	30	144	27
Tailors' apprentices	10	2	10	2
Dressmakers	......	323	......	103
Dressmakers' apprentices	......	9	......	......
Milliners	......	44	......	29
Wood products	614	2	437	1
Wood turners and machinists	47	......	46	......
Cabinet and furniture makers	79	......	57	......
Upholsterers	59	......	49	......
Printing, publishing, bookbinding	810	78	663	71
Owners, managers	127	5	46	1
Compositors, printers	450	2	418	2
Electrotypers, stereotypers	10	......	10	......
Lithographers	8	......	......	......
Pressmen	58	......	58	......
Bookbinders	18	31	17	31
Apprentices	86	8	81	8
Metal products	6,621	2	5,336	2
Blacksmiths, forgemen	1,134	......	597	......
Machinists	913	......	875	......
Fitters, assemblers, erectors	60	......	52	......
Boilermakers, platers, riveters	164	......	164	......
Mechanics	2,905	......	2,440	......
Car builders and repairers	474	......	474	......
Machinists' apprentices	62	......	60	......
Blacksmiths' apprentices	23	......	16	......
Jewellers, watch makers, repairers	160	......	76	......
Battery makers and repairers	43	......	36	......

Source: Adapted—Vols. VI and VII, 7th Census of Canada.

Vegetable Products

Workers engaged in the manufacturing of vegetable products include bakers and millers who are employed in the making of vegetable foods; bottlers, maltsters, brewers and stillmen engaged in making drinks and beverages; and vulcanizers concerned with the rubber products branch of the industry. There were 721 men and 46 women classified as wage-earners in these occupations in Alberta in 1931. More than one half of these were engaged as bakers and millers.

The following table shows the average earnings and average number of weeks of employment for bakers and millers in Calgary and Edmonton during the year ending June 1, 1936. Notice that on the average these men worked less than 70% of the year.

TABLE XXIX

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN THE MANUFACTURING OF VEGETABLE PRODUCTS IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

Occupation Group	Employees No.	Average Earnings $	Average Yearly Work Weeks
Bakers	263	686	36.8
Bakers' apprentices	15	280	35.2
Millers	39	787	33.2

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Baking

Bread and other bakery products ranked third among the Canadian industries in the number of employees, but eighth in salaries and wages paid in 1934. It was the ninth most important industry in Alberta, in the same year, in gross value of products, and employed 652 men and women, to whom $568,649 was paid in salaries and wages. The bread industry has made rapid strides in the past decade. During this period there was an increase in Canada of 37% in the capital invested in baking plants, and 56% in the number of employees. Approximately 19,000 workers were engaged in the bread and baking industry in Canada in 1934.[1]

At the present time immense quantities of bread are produced in bakeries. The dough is prepared for baking by automatic machines, such as mixers, kneaders and shapers. Temperature and cooking time are regulated by electrically controlled devices. The bread is also wrapped and sealed, and may be sliced, by machinery.

Qualifications, Training and Earnings. A high school education or a business course is not considered necessary for bakers, but such preparation would be very valuable for those persons who hope to become owners or managers. A suitable training may be obtained by serving an apprenticeship for three years. This should be started soon after one becomes 17 years of age, and certainly before one is 35. Only strong, healthy, energetic men or women who have good vision and lungs should think of becoming bakers. Beginners start as helpers, greasing and washing the pans, and cleaning the machinery. There were 42 bakers' apprentices in Alberta in 1931. Pay received by apprentices varies from bakery to bakery, but is approximately as shown below:

First year	$10 a week
Second year	$16 a week
Third year	$23 a week

The average experienced baker at present receives from $23 to $26 a week. Bakers have organized unions, which have not yet had much influence on wages, in regulating the number entering the occupation or in upholding the rights of the members of the organization.

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[1] Source: Canada Year Book, 1937.

Work and Hours. The supply of experienced bakers exceeds the demand, but, as in so many other occupations, a good man can usually obtain employment. Application for work should be made to the owner or manager of a bakery. The duties of the baker include such work as controlling and operating the machinery and compounding the materials for baking according to recipe. There are no day-to-day changes in a baker's duties once he has become a full-fledged workman, unless he becomes an owner or manager of a bakery. The field is rather limited with respect to opportunities for advancement.

Bakers enjoy fairly regular hours, and are required to work for 8 or 9 hours a day for 6 days a week; overtime may be required on certain occasions. Public holidays are usually observed, and in some firms annual holidays with pay are given to employees.

Advantages and Disadvantages of the Occupation. Bakers are not usually able to obtain group insurance nor have they a pension plan in which they may participate.

Bakers have ample time to pursue any stimulating or profitable avocation or hobby that they desire. They enjoy a large measure of freedom with respect to their political and religious beliefs. Baking, because of the flour dust in the air, is an occupation which may have some ill effects on the lungs.

Milling

"Flour and Feed Mills" was the 31st largest Canadian industry in 1935 according to the number of employees, and 7th according to the gross value of their products. According to the 1931 census there were 134 men gainfully employed as *millers* in Alberta; of these 100 were classified as wage-earners. The milling industry in Alberta in 1935 required the services of 682 employees.

The following table gives some information about flour mills in Alberta and Canada in 1935.

TABLE XXX

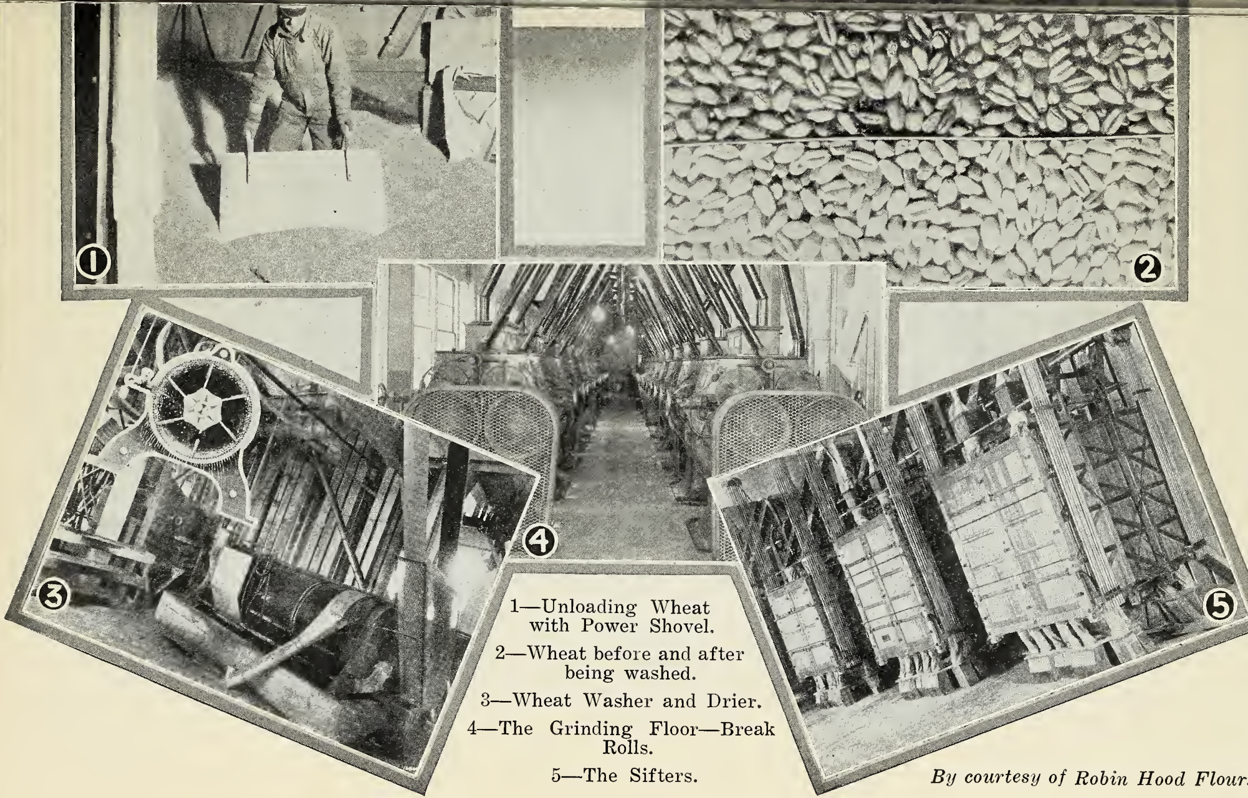
STATISTICS OF FLOUR MILLS IN ALBERTA AND CANADA, 1935

	Total Mills No.	Capacity of flour mills Bbl. per day	Employees No.	Gross value of Products $
Alberta	89	12,898	682	10,531,197
Canada	1,127	105,240	5,454	97,567,868

Source: Adapted from Canada Year Book, 1937.

Preparation and Qualification. If a student wishes to enter the administrative work of the milling industry he should complete at least 4 years of high school education. Mill chemists are usually men who have taken an honor's course in chemistry at a university. Such an education is not absolutely necessary, as the work can be learned in the mill laboratory; however, mills are very desirous of obtaining university graduates as their chemists. Millers are not required to have high school education. It might be noted that the Dunwoody Institute in Minneapolis offers a course for millers who have had some practical experience. Clerical workers with commercial school training are required for the office.

The usual personality and character traits, such as honesty, reliability and ability to assume responsibility are necessary for executives. Millers must be reliable and able to co-operate with the other workmen. General good health is an asset for all employees in the industry. Most millers begin their training soon after reaching age 18 and certainly before age 40. As a general rule personal



1—Unloading Wheat with Power Shovel.

2—Wheat before and after being washed.

3—Wheat Washer and Drier.

4—The Grinding Floor—Break Rolls.

5—The Sifters.

By courtesy of Robin Hood Flour.

interviews with the manager, superintendent and head miller are necessary before a man is given an appointment for plant work.

The work. Milling is learned in the plant during an apprenticeship. The apprentice begins work as an oiler and advances by degrees, as ability is shown and as openings occur, to the position of head miller. This promotion is slow, and especially has this been the case in recent years. Three mills in Medicine Hat, in the last five years, have together barely absorbed a dozen new men, including about 10 office boys, 1 chemist and 2 mill apprentices, who began as sweepers.

Oilers are engaged in oiling the machinery. Sweepers clean the mill and the machinery. The smutter cleans and tempers the wheat before milling. The grinder checks the work of the rollers. Millers supervise the process from time to time. They need to have a good knowledge of the machinery and to be able to make repairs. They must know how to interpret the analysis made by the chemist and make any adjustments necessary to keep the product uniform. The cereal chemist is a very important specialist, since it is his work which enables the miller to utilize his experience in such a way as to deal adequately with the distinct problems which occur in each year's crop. The chemist has a fine chance to become a mill superintendent.

Unions have not had any great influence on wages, or in upholding the rights of the employees. The number entering the occupation is governed by supply and demand.

The Hours and Pay. Millers work 8 hours a day for 6 days a week. During the busy season two, or even three, shifts may work each day. Pay may be on an hourly, weekly or monthly basis. Employees engaged on an hourly basis are paid time and a half, and sometimes double time, if they work overtime; but no pay during any holidays which they may take. Mills usually observe all public holidays.

Oilers and sweepers start work at about 30 cents an hour. The second miller receives 50 to 65 cents an hour; the head miller may be paid from $1800 to $5000 a year, depending on the size of the mill. Changes in management might have some effect on the personnel of the mill, but such changes occur infrequently.

This is an old field which is developing from the scientific viewpoint but not financially. The greatest opportunities are to be found in the great grain producing areas, but there are very few openings at present. Appointments and promotions now depend almost entirely upon the death or retirement of some of the employees. Both ability and seniority are considered when promotions are being made. The larger Canadian mills include Ogilvies, Lake of the Woods, Maple Leaf, Robin Hood and the Western Canada Flour Mills.

Health and Pensions. Mill workers are not usually required to retire at any fixed age, nor have they a pension plan. Some mills make it possible for their employees to obtain group insurance against illness and death. Most millers continue to receive their pay during a lay-off caused by an accident.

Few ill effects on the health of the employees are to be found in this occupation, since the dust problem has been largely overcome. Millers enjoy complete freedom with respect to their political and religious beliefs, and are free to use their leisure time in any manner they desire.

In addition to those engaged in the actual milling, mills also employ:

(1) Office clerks such as bookkeepers and accountants. Office boys are appointed from applicants who have three or four years of high school education.

(2) Stenographers and office machine operators.

(3) Unskilled laborers who require considerable strength but no particular training or ability.

Animal Products

Butchers, slaughterers, butter and cheese makers, meat canners, curers and packers are a few of the types of

Burns
Bakeasy
Brand
Shortening
Burns & Co. Limited Canada
Burns
Bakeasy
Shortening

By courtesy of Burns & Co. Limited.

Above, shortening is shown in the process of being filled into 50-pound pails and 1-pound cartons. Shortening manufacture forms an important branch of the packing industry.

workmen employed in the production of animal foods. A few cutters, dressers and sewers are required in the making of furs and fur goods. Boot and shoe makers and repairers, and harness and saddlery makers work with leather and leather goods. There were 1,082 men and 86 women wage-earners engaged in this branch of manufacturing in Alberta in 1931. The following table indicates the numbers of gainfully employed, wage-earners and wage-earners losing time in Alberta in 1931. The table also shows the percentage of wage-earners who lost time and the total possible working time of all wage-earners that was lost because of "no job" or a "temporary lay-off".[1]

TABLE XXXI

EMPLOYMENT AND UNEMPLOYMENT OF CERTAIN MEMBERS OF THE ANIMAL PRODUCTS INDUSTRY, ALBERTA, 1931

Occupation Group	Gainfully Employed	Wage-earners			
			Losing time	Losing time	Time lost
	No.	No.	No.	%	%
Butchers, slaughterers	537	509	187	37	17
Meat canners, curers and packers	96	96	34	36	16
Butter and cheese makers	140	137	24	18	8
Milk factory and dairy operatives	47	44	7	16	9

NOTE: 43 canners, curers and packers were female workers.
Source: Adapted—Vols. VI and VII, 7th Census of Canada.

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[1] In this and all similar tables unemployment was taken to mean time lost because of "no job" and "temporary lay-off." To estimate the percentage of time lost 50 weeks was used as a basic working year. Remember that this table does not indicate the range of unemployment, i.e., it does not show whether a few men each lost a great deal of time, or a large number of men each lost a small amount of time, or whether some men were unemployed for 1 or 2 weeks and others for the whole year. The table merely gives an *average* amount of lost time, and does not indicate the range.

The Slaughtering and Meat Packing Industry

This industry requires the services of stenographers, office clerks, executives, managers, foremen, butchers, canners, curers and packers. There were 10,674 employees engaged in this industry in Canada in 1935, to whom $12,448,347 was paid in salaries and wages. The industry ranked fourth in gross value of products and sixteenth in amount paid in salaries and wages. It ranked first in Alberta in gross value of products and in salaries and wages paid and second in number of employees.[1]

Qualifications. At least four years of high school education are considered necessary for a man who desires to advance to the better positions. A university course leading to the B. Com. degree would greatly increase the chances of a young man advancing to the highest executive positions. A business course is necessary for such office workers as stenographers and bookkeepers.

Honesty, sobriety, tact and a fairly aggressive personality are the characteristics most necessary for promotion to the more desirable positions. Office workers and salesmen are required to have general good health and good eyesight. Applicants for plant work are usually required to present a doctor's certificate of physical fitness or are required to pass a medical examination at the plant before they are engaged.

Meat packing requires special training. To be successful a man must start at the bottom and work up, in order that he may obtain a good knowledge of the whole industry. For this reason it is advisable for a student to start work in this industry as soon as he is ready to find employment. Tests and examinations are not used to any extent in determining aptitudes and abilities for most phases of the work. Certain recommendations are necessary in view of the fact that supervisors, office employees and members of the sales force are bonded.

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[1] Source: Canada Year Book, 1937.

The Work and Pay. A great variety of workers is to be found in this industry, including unskilled laborers, skilled laborers of varying degrees of abilities, as well as such tradesmen as electricians, carpenters, machinists and stationary engineers. Unskilled laborers may advance, if they show the requisite ability and initiative, to certain skilled jobs or to a foreman's position; individuals who have been trained in the plant are usually given preference when promotions are being made. Certain practical courses, known as the "Homestudy Courses in the Meat Packing Industry" have been prepared by the Institute of American Meat Packers (Chicago), in conjunction with the University of Chicago. Experience gained by employees in actual plant work is largely non-transferable, so that persons who have been trained in plant work are largely restricted to employment in this type of work. In the office the employees include typists, stenographers, bookkeepers, accountants and office machine operators. Office workers are, of course, fitted to obtain work in almost any branch of business.

General economic conditions and the demand at home and abroad have a great effect on salaries and wages. Workmen in the plant receive from 33 to 70 cents an hour; foremen are paid from $35 to $40 a week. Wages and salaries paid to office workers vary from $60 to $300 a month. The following table indicates the average earnings and average number of weeks of employment of wage-earners in the industry in Calgary and Edmonton in the year ending June 1, 1936.

The field is comparatively new, and is in a state of growth, although at the present time the opportunities of obtaining employment and advancement are somewhat limited. We have some evidence that it is difficult to secure men who can and will train themselves to be specialists, and specialists are required by this industry.

TABLE XXXII

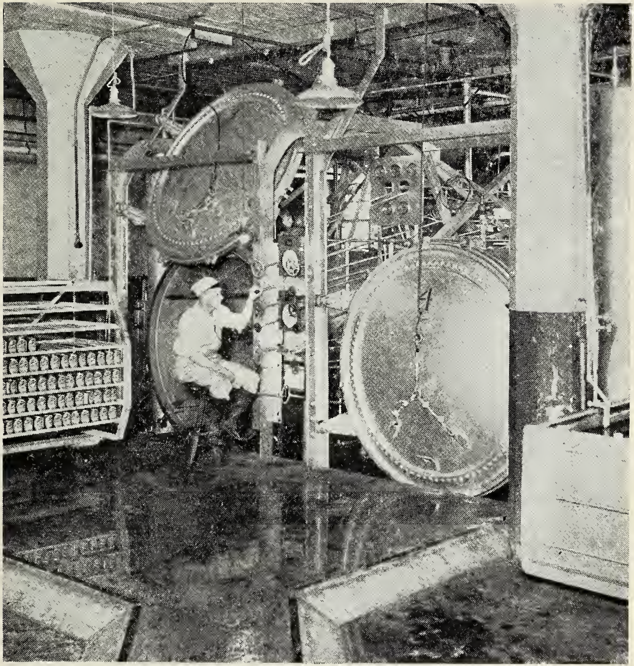
Average Earnings and Weeks of Employment for Wage-Earners Engaged in the Meat Packing Industry in Calgary and Edmonton in the Year Ending June 1, 1936

Occupation Group	Employees No.	Average earnings $	Average yearly work Weeks
Butchers	511	677	39.9
Male canners	97	776	45.2
Female canners	68	425	37.8

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

The greatest opportunities are to be found in meat packing centres, such as Calgary, Edmonton, Winnipeg, Toronto and Chicago. Applications for employment should be sent to the personnel department or to the plant superintendent for plant work; to the office manager for office work and to the sales manager for sales work. Advancement depends on ability; exceptionally good men have fine opportunities for improving their positions. Expansion of the business is the determining factor in promotion, in that it will cause a demand for more employees in all branches of the industry.

Male employees are usually required to work 9 hours a day; female employees only 8 hours. The hours for some employees vary, but plant workers usually work from 7 a.m. to 5 p.m. and office workers from 8 a.m. to 5 p.m., with time off for lunch. Plant workers are sometimes required to work overtime, for which they may be paid at the usual rate or at time and a half. However, the management tries to have a sufficient number of workers so that no overtime will be required, and at the same time to give the maximum amount of employment to a maxi-



By courtesy of Burns & Co. Limited, Calgary.

The large cooking retorts shown above are part of the up-to-date machinery used in the canning of sausages, spiced ham and many other meat products. This complex machinery and other intricate processes calls for the employment of highly trained experts.

mum number of workmen. The plant is usually in operation 5½ days a week. Salaried employees are given public holidays; certain members of the staff are given an annual vacation of two or three weeks.

PHOTO
W. J. OLIVER

By courtesy of Burns & Co. Limited.

A CORNER OF A MODERN SAUSAGE KITCHEN
Girls in trim caps and enveloping aprons are shown at work in this bright, modern kitchen where sausages and other cooked meats are prepared. The equipment over the table in the foreground is an automatic sausage linking machine

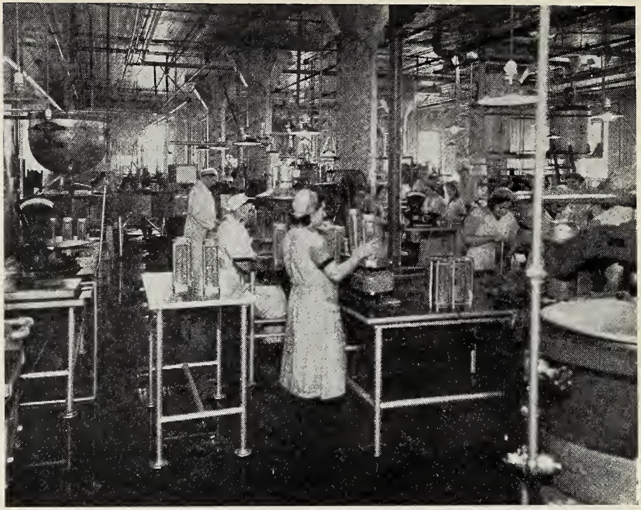
Protection Against Accident. Wages to a workman who is paid on an hourly basis do not continue during a lay-off caused by an accident; salaries may be paid to salaried employees during an absence from work caused by an accident. Certain firms have also organized Employees' Benefit Associations to help their members in case of illness, and to offer group life insurance. Dues to the Benefit Association are frequently paid by the firm. As yet no pension scheme has been organized for employees in the meat packing industry, nor is there a compulsory retiring age. A certain Benefit Association pays its injured members $15 a week for a period of 7 weeks. The value of the group life insurance policy with this association varies from $250 to $3,000, depending upon the length of service of the individual.

Advantages and Disadvantages of Employment in this Industry. This industry provides a very necessary service for society by supplying clean food to the consuming public and in offering a cash market for farm products.

Plant work is largely repetitive in nature; the members of the executive and certain foremen need to have considerable initiative and originality. Members of the sales force are the only employees required to do much travelling. Employees have complete freedom with respect to political, social and religious beliefs. On the whole each occupation in the industry offers healthful employment.

Meat Canning

Scarcely ten years have passed since ready-to-serve canned meat was introduced to Western Canada consumers. In that short space of time, however, meat canning has developed into one of the most important branches of the already important meat packing industry. The reason for this success is not hard to find. Here was a product that was a time-saver. It eliminated considerable labor for the housewife and the camper. It became no longer necessary to spend time over a heated oven at the last minute. It ended the inconvenience of the camper who desired to enjoy outdoor life without the uncertainty



By courtesy of Burns & Co. Limited, Calgary.

SECTION OF MEAT CANNING DIVISION.

Meat canning is one of the most modern branches of the meat packing industry in Alberta. In the above illustration, employees may be seen operating jacketted kettles, vacuum ring, and other equipment used in the canning of a wide variety of canned meat products.

and necessity of cooking in the open. Then, too, canning of meats rendered them practically non-perishable. As a result they could be shipped long distances or stored indefinitely in wholesale quantities or in the household for emergency use.

Canning operations now include a great variety of meats and meat products. Among these products may be mentioned spiced ham, sausages, chicken cooked whole in the tin, chicken-à-la-king and boneless chicken, as well as a number of ready-to-serve dinners such as beef stew, corned beef and cabbage, and spaghetti and meat balls.

In the cooking process the meats are put in the tins which are then placed in large steel, basket-like carriers known as "trolleys." These trolleys run on a track into a large steel cylinder where, after the doors have been tightly closed and barred, the product is cooked under steam pressure.

A system of controls and temperature gauges ensures that each can is cooked at the proper temperature and for the proper length of time. This method of cooking ensures that all the flavors and aromas are retained by the product.

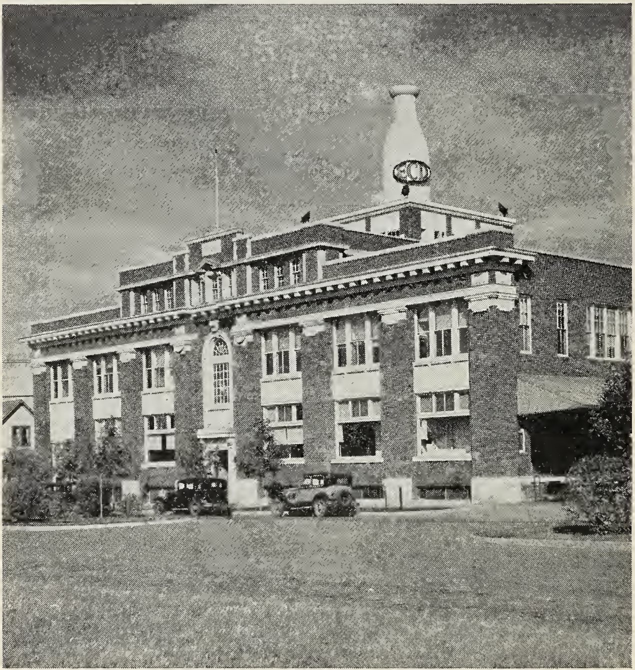
After the cooking process is completed the cans, with automatically weighed contents, pass along a conveyor belt to an operator who places each under a sealing machine. As it slides along, a lid drops on the can, another operation rolls the upper edge of the can over and crimps it. The final operation produces a vacuum in the can and seals it tightly.

Canned meats may be truly included among the greatest gifts science has given to modern living. They supply a convenient solution to the problem of better and more wholesome menus which combine tastiness and purity.

Dairying

Reference in this section is made to both dairy farms and dairy factories, and so one should note to which of these the information given refers.

In larger farms there may be a departmentalization of labor, but in small dairies an employee might be required to take part in all phases of the work, which would include, milking, feeding, cleaning the plant, and caring for, cooling and delivering the milk. Some of the larger dairies might include butter and cheese making in their activities. Employees required in dairy factories vary all the way from unskilled laborers to highly trained executives. Butter and cheese making was the fourth largest industry in Alberta in 1934 in respect of gross value of products. Dairy factories employed 278 em-



—By courtesy of Edmonton City Dairy Limited.

A modern milk distributing plant in an Alberta city. The processing and distributing of the daily milk supply for thousands of families calls for a complex organization, providing employment in many phases—ranging from ordinary unskilled labor to University-trained scientific technicians.

ployees on salaries and 494 on wages. Salaries and wages amounted to $823,510. Farmers supplying milk to the factories were paid $4,303,755; the total value of products of these factories was $6,412,968.[1] The dairy farming industry employed 1,438 men and 55 women in Alberta in 1931.

Training and Qualifications. Training for the more important administrative and research departments of factories and farms may be obtained from any of the following institutions:

(1) Provincial Agricultural Schools at Olds or Vermilion.

(2) The University of Alberta—short course of one month.

(3) The University of Alberta—full course in agriculture, followed by post-graduate work for those who intend to pursue the more highly technical and research work of the industry.

Technical training is very important for the more responsible positions, but practical training obtained by working on a farm or in a factory is also very necessary before one can hope to be promoted to these positions.

Many employees on farms or in factories are required to have a certain amount of mechanical ability. Office workers and executives need a certain adaptability for commercial pursuits. Practically all workers must be able to co-operate with their fellow workers. Neatness, carefulness in detail and the capacity to give attention to many details are required of many of these workmen. Good health, vision and physical strength are necessary in most positions. Early entrance, between the ages of 18 and 25 years, is advised for those persons who intend to make a success of the work.

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[1] Statistics of Dairy Factories, 1934.

Courses valuable to dairy farmers offered at the University of Alberta and at the Agricultural Schools include the study of breeds of livestock, feeding and general management, grains and grasses and their relative values and production. Courses are also offered in farm mechanics, management, carpentry and simple accounting. A very valuable training is obtained by starting work in a subordinate position and learning the duties by observation and experience.

Experience gained on farms or in factories is fairly flexible. It may be used by employees in actual farm or factory work, or in such other ways as indicated below:

(1) A person with a small capital might establish his own dairy farm.

(2) An individual with such experience might enter the creamery business or become a cream grader.

(3) A person with the necessary academic background might become a teacher.

Earnings. Due to the great range of occupations found in the industry, it is very difficult to state what salaries or wages might be expected. Initial earnings might vary from $15 to $35 a month, depending on the particular type of work the individual is doing. Only a few employees would receive as high as $1,500 a year. Exceptional men in some of the larger dairies might receive as high as $2,400 a year. The following table shows the earnings and average number of weeks of work for certain employees in this industry in Calgary and Edmonton in the year ending June 1, 1936.

Foremen's positions are very scarce in Alberta, so that in order to obtain the more desirable work one must usually become an owner of a dairy farm.

A few men who have had training on dairy farms or in factories have found employment in the agricultural

TABLE XXXIII

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN DAIRY FARMS AND FACTORIES IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average Earnings $	Average Yearly Work Weeks
Butter and cheese makers......	48	820	39.5
Operatives in milk factories and dairies	29	867	43.4

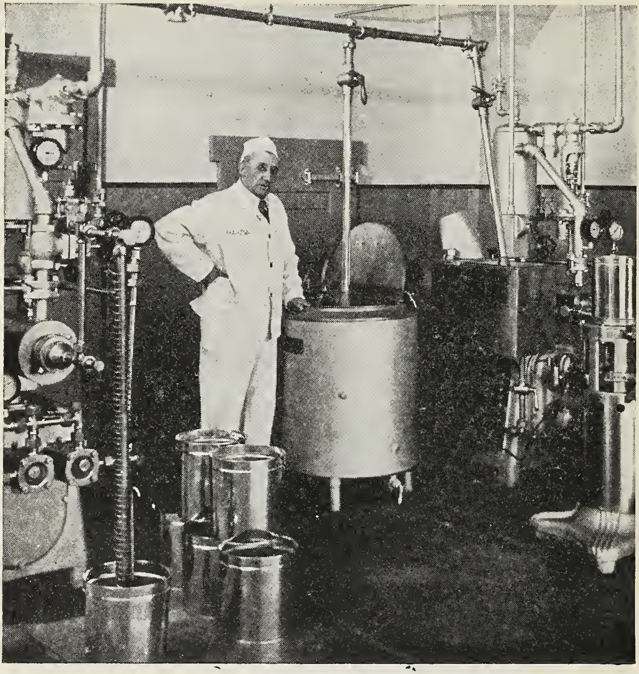
Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

extension services of Dominion and Provincial governments or with railways.

At present the chances of obtaining employment in Alberta are rather limited. However, there is every reason to believe that Alberta may become important for dairying and for the products of dairy factories, and this would, of course, result in a greatly increased demand for those who are qualified for the work.

Specialists. The need and demand for specialists varies. There is a great need if dairying is to advance and the health of the people is to be protected. A comparative study of dairying here and in Denmark reveals how much we have yet to learn and what great advances we may expect if we are to have among our farming people a large group of well trained specialists. A similar statement may be made with respect to the need for specialists in dairy factories. As marketing is equally as important as producing, specialists are also required for this branch of the industry. Opportunities are greater nearer the larger centres, and in the northern and central parts of Alberta.

Hours. The hours of labor are fairly regular for all



By courtesy of Crystal Dairy Ltd.

This photograph features the very latest VOGT continuous freezing type ice cream freezers.

employees. Employees on dairy farms may be required to work from 8 to 12 hours a day, depending on the type of work that they are doing. The working week also varies from 6 to 7 days. Hours of factory employees are much the same as for those workers in the meat packing industry. A few workmen are given annual holidays with pay. Wages may continue if an employee is injured and has to lay off work.

The work is fairly monotonous in the lower positions. In many cases there are opportunities for self-development, as for instance a man may become an expert cattle breeder, feeder or judge. Most occupations offer healthful work.

Harness and Saddlery Making

This is an occupation of the past as far as Alberta is concerned. There were 99 men gainfully employed in this occupation in Alberta in 1931; of these, 45 were wage-earners. This is a somewhat larger industry in the East, but even there openings are very scarce. There are today many good harness men who are out of work, or who have left the trade because there appears to be no future in it. The use of tractors and automobiles have ruined the business, not only in the West but also all over the world. Most shops in the West have found it necessary to put in side lines in order to make a living, and so may include shoe repairing, skate sharpening, and tennis and badminton racquet re-stringing.

Training and Qualifications. A technical training would be recommended for men who desire to find employment as shop workers, while men who desire to become owners or managers should also have a commercial course and a good academic education. Workers should be of a mechanical turn of mind, with good health and eyesight. Owners and managers must be able to meet the public and should have a neat personal appearance.

Young men between 17 and 22 years of age are most acceptable to employers as apprentices. From 3 to 5 years is considered the usual training period. There are, however, few harness makers in the West, and few of these would care to engage apprentices. Apprentices in small shops learn the cutting, stitching, fitting, assembling and repairing of harness parts. Power machinery has had a great deal to do with the reduction in the number of workers. Then, too, factory hands now are usually required to learn the operation of a single machine, a task which they can learn in a very short time. Calgary, Winnipeg, Vancouver, Brandon, and Toronto have harness shops. Wages paid to an apprentice depend entirely upon the employer. Apprentices could utilize their experience in shoe making and repairing shops and in baggage and leather works.

Earnings and Hours. Initial salaries are determined by a minimum wage act; wages of experienced men may be as high as $30 a week. The trade is not organized into unions. The average working year of 28 harness and saddlery makers in Calgary and Edmonton in the year ending June 1, 1936, was 24.7 weeks, and their average wage was $375.[1]

The hours are fairly regular, being from about 8.30 a.m. to 12 noon and from 1 p.m. to 6 p.m. for 6 days a week. Employees may or may not receive annual holidays with pay. There is no retiring age, pension scheme or group insurance for these workmen. Wages do not usually continue if accident or illness forces a man to lay off work.

Factory work is monotonous. Small shops require workmen who have a certain amount of initiative and originality. There are no detrimental effects to the health as a result of engaging in this occupation. No restrictions are placed on the use of leisure time, or upon political and religious activities.

Textile Products

Canadian establishments classified in this group, numbering some 2,234, paid out $90,796,601 to 115,695 persons in 1934. The textile industry ranked third in net production among the ten major industrial groups, being exceeded only by the wood and the vegetable products industries. It ranked second in 1934 in number of employees and in salaries and wages paid. The outstanding feature of the textile situation in Canada has been the great expansion of the silk industry during the last few years, at a time when practically all other industries were experiencing a diminished demand for their products. This industry has increased its output, since 1926, by 204% and its employment by 280%.[1]

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[1] Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Some of the occupations in the textile industry include weavers, cutters, hat and cap makers, sewers, sewing machinists, tailors and tailoresses, dressmakers, knitters, and milliners.

Garment Workers

The 1931 Census listed 1,162 men and women gainfully employed in the manufacture of wearing apparel in Alberta; of these 430 were male workers. The number of wage-earners was given as 639, of whom 200 were men.

The Work and the Training. The tasks performed by garment workers are as follows: (1) the cutter, either male or female, cuts out the garments; (2) the operator, who is generally a woman, operates a specific type of machine; (3) the examiner carefully checks the finished garment; (4) the presser works on the garment after it has left the hands of the operator; and (5) the folders, who may be either men or women—men fold the pants, women fold shirts and smocks.

For most of these occupations an elementary school education is considered sufficient. Any student desiring to become a designer should take academic work in high

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[1] Source: Canada Year Book, 1937.

—*Courtesy of Tip Top Tailors Ltd.*

Cutter in a Garment Factory

school, and then a course in designing at a technical school. Nervous, high-strung individuals should not seriously consider this occupation when looking for a vocation. There is so much monotony in the work that the employees need to be emotionally stable or they may suffer a nervous breakdown. They should be physically fit and more especially should have good lungs and eyes. The lint is very injurious to the lungs; close work affects the eyes; the monotony of the high speed work causes a great nervous strain. Garment workers need to have quick, nimble fingers, an artistic sense, an alert mind, and the ability to make measurements quickly and accurately.

Unions; Pay. Unions have had some influence in regulating the number of appointees to this industry by limiting the number of apprentices who may be engaged; for instance, only one apprentice is allowed to every three cutters. The apprentice is required to serve a training period of three years. Unions have also been instrumental in organizing a definite, regular rate of increase of wages for apprentices, who start as helpers doing the rougher types of work. As ability increases they are advanced to finer work and ultimately may become operators of electric cutters. There is very little transfer in this training, although employment may be found in the upholstery section of an automobile factory or possibly with a tailoring establishment. Unions will also act if necessary to uphold the rights of employees.

Operators start their apprenticeship at about $6 a week and gradually increase their earnings to $12.50. Cutters usually receive $15 a week during the first six months and may attain to about $35 a week by the end of the apprenticeship. The average salary for operators is about $18 a week, and for cutters the maximum is about $35. The following table shows the earnings and weeks of employment of certain garment workers in Calgary and Edmonton in the year ending June 1, 1936.

Specialists; Promotion; Hours. There is only one designer in a factory except in larger factories outside the Province. A few specialists are required for operating certain machines, such as the buttonhole machine. The greatest opportunities in this work are to be found in Eastern Canada and the United States. Advancement is a matter of merit, so that advanced or technical education may be the deciding factor in obtaining promotion. It is possible to advance, with this education, to a certain stage. However, after that stage has been reached executive ability and general education would determine any further advancement. Application for employment should be sent to the factory superintendent.

TABLE XXXIV

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR FEMALE WAGE-EARNERS ENGAGED IN THE MANUFACTURING OF TEXTILE PRODUCTS IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Dressmakers	76	381	33.3
Sewing machinists in shop or factory	177	382	36.8
Sewers not in factory	61	438	38.6
Tailoresses	23	512	39.9

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

In normal times the hours are regular, from 8 a.m. to 12 noon and from 1 p.m. to 5 p.m., for 5½ days a week. Work may be irregular and vary with the season in times of depressed business conditions. Time and a half is paid for overtime, except that for work done on Sundays and holidays, double time is allowed. Annual vacations, if desired, must be taken without pay. Certain salaried officials are given annual vacations with pay.

Pensions and Insurance. No retiring age or pension scheme is in effect for these employees. Garment workers can not obtain group insurance. In some cases Death Benefit Funds are offered by the Unions to their members. Employees pay about 25 cents a month to the union for participation in this fund. After an employee has been a member of the union for 6 years this fund may amount to about $300.

Dressmaking and Millinery

We always have wanted, and always will want new clothes, and so there will always be a demand for dressmakers and milliners. However, this demand is affected by the extent to which machines can do the work. More and more this work is being done in factories by machinery, so that the number of dressmakers and milliners is decreasing.

The table shown below gives some idea of the proportion of these workers who are employees and the amount of time they lost in 1931 because of "no job" or a "temporary lay-off." For instance, about one third of the dressmakers were forced to lay off work. Such facts as these must be considered when one is looking for a vocation.

TABLE XXXV

EMPLOYMENT IN CLOTHING OCCUPATIONS IN ALBERTA, 1931

	Gainfully employed No.	Wage-earners			
		No.	Losing time No.	Losing time %	Time lost %
Dressmakers	323	103	36	35	16
Milliners	44	29	10	35	14
Tailors	330	144	65	45	23
Tailoresses	30	27	17	63	28
Tailors' apprentices	12	12	4	33	18

There were also 9 dressmakers' apprentices.

Source: Adapted from Vols. VI and VII, 7th Census of Canada. 1931.

It is illuminating to compare some of the above data with similar 1921 census information. In 1921 in Alberta there were 163 milliners, and 406 dressmakers and seamstresses. In 1931 there were 437 dressmakers and seamstresses. From these data it would appear that these occupations have seriously declined in importance in Alberta since 1921.

Qualifications and Training. A person, to be successful in these occupations must find clothes, fabrics and styles the most fascinating things in life. Almost any one can learn to sew, but it requires ability, everlasting persistence and careful training to reach the top.

The possibility of being successful is greatly increased in the case of those individuals who have had a high school and a technical school education. Excellent courses are offered at technical high schools and at the Institute of Technology and Art in Calgary. Training courses deal with color, design, pattern drafting, textiles, line, bookkeeping and visualizing the completed article. Pupils are also taught the fundamentals of sewing, cutting, designing, fitting and finishing suits and dresses. There is practically no such thing as apprenticeship in Alberta now. Some correspondence schools offer a training in dressmaking but practical work is also necessary.

Women may find this training useful if they desire to obtain employment in some of the following institutions: (1) various departments of a departmental store or a ladies' wear store; (2) cleaning and dyeing works; (3) the drapery department of a house furnishing store; (4) clerking in a ready-to-wear store; (5) in tailoring work; and (6) buying for a ready-to-wear store or department.

Wages and Hours. Minimum wages are determined by government regulations. The average wage would be about $15 a week, although a few might receive as high as $20. There are no dressmakers' unions. Millinery is an old occupation which is not now making any progress. Factory-made clothes have to some extent changed the occupations of former dressmakers. Instead of making dresses they are now required to make alterations in ready-made clothes. There is an oversupply of sales girls, but this is not so true of trained milliners.

The majority of employees work 8 hours a day for 6 days a week. The practice of giving annual holidays depends upon the firm. The same is true with respect to continuance of pay during the lay-off caused by illness or accident.

There is considerable scope for exercising individual initiative. Inner satisfaction arises from the creation of an artistic design and the production of a garment which meets with the approval of the customer. The nervous strain from the work is fairly heavy, but an individual with average good health and strength should not find the work too difficult.

Wood Products

Of the 1,191 wage-earners in this industry in Alberta in 1931, 734 were engaged in printing, publishing and bookbinding. Table XXXVI shows the average earnings and the average number of weeks of employment of cabinet makers and upholsterers in Calgary and Edmonton in the year ending June 1, 1936.

It is interesting to notice that there were 49 employees in upholstery in these same two cities in 1931, but that there were 58 cabinet and furniture makers. There were 9 apprentices in these two occupations in 1931 and none in 1936.

TABLE XXXVI

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN THE MANUFACTURE OF WOOD PRODUCTS IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

Occupation Group	Employees No.	Average earnings $	Average yearly work Weeks
Cabinet and furniture makers	34	576	37.5
Upholsterers	58	651	37.1

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Cabinet Making

The 1931 census listed 79 men as gainfully employed as cabinet and furniture makers in Alberta. Of these men, 58 were wage-earners. Compare this with the furniture industry in Ontario where there were 206 establishments, paying $4,262,402 in salaries and wages to 5,413 employees in 1934. In addition to these firms there were some concerns which included cabinet making as a sideline.[1]

Qualifications and Training. Steadiness, sobriety, honesty, neatness, general trustworthiness, perseverance, versatility and ability to attend to small details are essential personality and character traits. Good eyesight, lungs and general physical fitness are the necessary physical qualifications. The best time to start in this occupation is between 16 and 20 years of age. No tests are given to applicants; the early work of the beginner is used as a basis on which to judge of his chances of success.

The occupation is now highly specialized. Each stage of the work, all the way from selecting the material to the polishing and finishing of the product, is done in stages by different workmen.

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[1] Source: Canada Year Book, 1937.

From three to five years of training under a skilled artisan are necessary to give one a good insight into the work. In the early part of the apprenticeship the learner is required to do the rough work, sketch the objects to be made, learn to sharpen and care for the tools, develop the ability to use hand tools and machines, mix the stains, paints and varnishes, and acquire the technique of "finishing". The apprentice sandpapers boards, cuts joints, makes small doors and box cabinets of simple design. As his skill increases he is given small jobs to do and so gradually advances to the more specialized work.

The Institute of Technology and Art offers a course in cabinet making. Details of the course are sent free on request. Studies in arithmetic, mensuration and elementary chemistry are included in most courses offered at technical schools. Students also learn the mechanics of joinery, drafting, the classics of period design, factory management and equipment.

Openings and Wages. There are other fields in which cabinet makers may find work so that they need not suffer too much from unemployment. These workmen may, for instance, find work in the building trades, in factories making aeroplanes and railway coaches, in automobile body works or as interior decorators, furniture repairers and pattern makers in foundries.

The following table gives some idea of the usual rate of pay:

Apprentice:	1st year	25 cents an hour
	2nd year	30 cents an hour
	3rd year	35 cents an hour
	4th year	40 cents an hour
Journeymen:	(average)	75 cents an hour

It would probably take employees in this industry from 6 to 10 years after starting the apprenticeship before they could expect to be able to support a home. It should also be noted that the work is very seasonal and depends on economic conditions. Trade unions, in certain districts, have had some influence on wages. The majority of employees are paid wages, but some men are engaged on a piece-work basis.

The Work and the Hours. Foremen are required to deal mainly with men and ideas; other employees, with things and ideas. It is estimated that 1 man in 20 becomes a foreman and 1 in 100 becomes a superintendent. Experienced workmen must be able to operate woodworking machines, such as sanders, band saws, mortisers and jointers, and use hand tools. They are required to get out the necessary material from the stock room, assemble the parts and finish the job, estimate costs and design cabinets and furniture. In small shops there is an interesting variation in the work which is not found in the mass production of large concerns.

This is an old field which is not making much progress in Alberta at the moment. The greatest opportunities are to be found in the larger centres and in growing communities. The supply of workmen exceeds the demand, but in good times there is frequently a scarcity of good artisans. Good bench men, cabinet makers, designers and administrators can usually obtain employment. Three of the larger Alberta firms requiring these workmen are those of Hayward, Clark, and Cushing.

Unions, although they are not very well organized, are having some influence on the length of the working day. Employees are usually required to work 8 hours a day for 5½ days a week. Most firms observe public holidays. The majority of workmen do not take annual holidays as there is usually a slack time during the winter months when they may be forced to lay off work.

Special Advantages and Disadvantages of this Occupation. There is no compulsory retiring age nor a pension plan for these workers. Workmen obtain a great deal of satisfaction from cabinet making. A good cabinet maker is a craftsman who, in making useful and necessary articles, creates both comfort and beauty at one and the same time. Further, this work gives a man a hobby which he may turn to useful and profitable account by making articles for his home and for his neighbors. These craftsmen are usually very congenial workmen. The smaller shops offer wide opportunities for exercising one's initiative and originality. Very little travelling is required of these workmen. Complete freedom with respect to social, political and religious activities is enjoyed by all workers. The work may be somewhat injurious to nerves and eyes, and also to the lungs in those shops which use sanders.

Printing, Publishing and Bookbinding

These three groups of occupations formed the most important part of the wood products industry in Alberta in 1934, when they required the services of 787 men and women. Printing and publishing in 1935 in Canada ranked 14th among the industries in gross value of products, 8th in number of employees and 2nd in salaries and wages paid. The number of employees was 16,889, to whom $23,061,512 was paid. Printing and bookbinding employed another 12,194 men and women who received $13,707,159 in salaries and wages. Printing and publishing together with printing and bookbinding were the leading industries in respect of number of employees and salaries and wages paid.[1]

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[1] Source: Canada Year Book, 1937.

The following table shows employment conditions in these industries in Alberta in 1931.

TABLE XXXVII

EMPLOYMENT AND UNEMPLOYMENT OF WORKMEN IN PRINTING, PUBLISHING AND BOOKBINDING, ALBERTA, 1931

Occupation Group	Gainfully employed No.	Wage-earners			
		No.	Losing time No.	Losing time %	Time lost %
Male					
Managers	127	46	2	4	1
Bookbinders	18	17	4	24	10
Compositors, printers	450	418	106	25	10
Electrotypers, and stereotypers	10	10	1	10	2
Machine tenders	23	23	5	22	13
Pressmen, plate printers	58	58	21	36	13
Printers' and bookbinders' apprentices	86	81	23	28	13
Female					
Bookbinders	31	31	12	39	14
Machine tenders	8	8	5	62	45
Printers' and bookbinders' apprentices	8	8	3	38	23

Source: Table adapted from Vols. VI and VII, 7th Census of Canada, 1931.

Printing

Work. What is the nature of the printer's work? Roughly, three types of work may be distinguished. These types are:

(1) Work in commercial shops, where the duties include designing, setting up, printing, imposing and binding books, catalogues and general commercial work.

(2) Newspaper work, in which the important tasks

By courtesy Commercial Printers Ltd., Edmonton.

A Modern Printing Shop

include laying out, setting up, locking up and stereotyping, and printing newspapers.

(3) In linotyping the important work is the operation of the linotyping machine.

A compositor makes up the paper. A pressman prints the paper and runs the presses. Binders sew, trim, staple and glue the material to be bound. Job pressmen operate the presses in a commercial shop. The news and bookmen run the presses of newspapers and publishing houses. The color pressmen control the color mechanism of the press.

Four years of high school education are considered necessary for would-be printers. Patience, reliability, persistence, honesty, sobriety and the desire to learn are essential characteristics for the boy who would be a successful printer. Applicants for work must be in good health, have good lungs and eyesight and the full use of hands, arms and legs.

Apprenticeship. Learners are required to serve an apprenticeship of from 5 to 6 years. During this time they act as helpers to master mechanics. They start with the very simple tasks and gradually they acquire the skill to perform highly technical tasks. During this period they must study lessons prepared by the International Typographical Union. Full details of the course may be obtained from John H. Chambers, Director International Typographical Union, P.O. Box 959, Indianapolis, Indiana, U.S.A. A master apprentice had to pass examinations set by this Union. To complete this course successfully the learner usually requires about 5 years.

The scale of wages for apprentices follows:

1st year	¼ of the journeyman's scale
2nd year	⅓ of the journeyman's scale
3rd year	½ of the journeyman's scale
4th year	⅔ of the journeyman's scale
5th year	¾ of the journeyman's scale

All wages in the mechanical work are regulated by unions.

All apprentices who apply for membership in the International Typographical Union are required to pass competency tests in health, schooling, English, trade knowledge and trade skill. While printing is largely a mechanical operation, still it needs supplementing by a well-informed mind. Applicants for apprenticeship must be between 16 and 22 years of age.

The Western Canada High School in Calgary offers a two months' course in printing. Calgary residents are not required to pay any fees; non-resident students pay the usual Calgary School Board tuition fee. It must be noted that the training given to printers is rather inflexible, in that it can not be readily applied to any other occupation.

The mechanical work includes type-setting by hand or machine, stereotyping and press work. As one advances in the trade the work becomes supervisory, and one has less actual contact with the machines. Printers find work in commercial plants and on newspapers and magazines. Considerable effort to regulate the number entering the trade has been made. We have some evidence which shows that good workmen can usually find employment. Opportunities are greatest in the larger centres. Application for work should be sent to the foreman of the mechanical department of the firm in which one desires to find work. Changes in management do not usually have any effect on the positions of printers.

Hours and Wages. As a rule the hours are quite regular. Printers are required to work 8 hours a day. They are given public holidays, but if they desire to have annual holidays they will receive no pay for the time that they are away from work.

The following table shows the earnings and weeks of employment of employees engaged in the printing business in Calgary and Edmonton during the year ending June 1, 1936.

TABLE XXXVIII

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR WAGE-EARNERS ENGAGED IN PRINTING, PUBLISHING AND BOOKBINDING IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

Occupation Group	Employees No.	Average earnings $	Average yearly work Weeks
Male			
Managers	37	2750	50.4
Bookbinders	15	1045	38.5
Compositors and printers	323	1115	37.9
Pressmen, plate printers	38	1325	41.2
Printers' and bookbinders' apprentices	22	338	37.5
Process engravers	10	1470	50.6
Female			
Bookbinders	30	460	36.9

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Salaries for employees in the printing industry vary from $10 to $75 a week. The day rates in Medicine Hat are $35.64, and night rates in Calgary are $43.48 a week. Working hours and rates are determined by agreement between the union and the employer. Overtime is paid for at the rate of time and a half. Work done on Sundays and holidays is paid for at the rate of double time. Unless all men are on full time the plants are closed shops to new men, except apprentices.

Specialization is the order of the day in the printing trades. Good linotypers, stonemen, pressmen and bindery workers are all specialists. Only in the smaller shops do one or two men do all the work. Advancement depends primarily upon merit and so special qualifications receive attention when promotions are being made.

There is no compulsory retiring age for printers. However, the union has a pension scheme which pays those men who have been in good standing for 25 years a pension of $8 a week. Workmen may retire at age 60 years and receive this pension provided they have fulfilled the previously mentioned condition. The union also provides certain death benefits. A man does not receive his pay if he is forced to lay off work by sickness or accident.

Importance of the Work. The printing trade is very important. To quote one printer: "Printing brought the world out of the Dark Ages into enlightenment." Through the work of the printer men may broaden their outlook and keep informed of what is going on in the world. Business and business methods have been greatly aided by this trade. While no very great social recognition is given to these tradesmen, still they have an advantage over many professional and business men in that they have greater freedom in their religious and political life. Possibly our great familiarity with their work prevents our giving them any special social recognition.

In some cases the work has been found to be very trying on the nerves. The press room is healthful. Men in the composing room are subject to lead poisoning. However, conditions even there have been greatly improved in the last 40 years.

Publishing

A great many occupations are included in the term publishing. We shall say only a few words about these occupations here. A section dealing with Journalism will be found in Chapter XIV.

Four years of high school education should be obtained by any one desiring to enter the field of publishing. Workers in the editorial branch can be more successful if they have a university education. A B.Com. degree would be very useful for persons seeking employment and advancement in the executive positions.

Editorial work requires studious men and women who are also capable of meeting people. Literary ability is especially desirable for these workers. The business branch of publishing requires the aggressive, resourceful type of individual. A reserved person would be seriously handicapped in this department of the industry. All branches of the work require strong, healthy men and women, for the work is very exacting in its physical demands.

The business department is concerned with the advertising, soliciting and circulation of the paper. Application for employment should be made to the business manager. The hours are similar to those in most other businesses. Employees in these branches of the work observe public holidays and as a general rule they are all given two weeks' annual holiday with pay. There are good chances for advancement, for there are many positions with varying degrees of responsibility. Changes in the management are quite likely to have an effect on the positions of employees in the business department. The firm may or may not continue to pay wages to its employees who are forced to be away from work by sickness or accident. The business experience gained in this work is very valuable in case employees find it necessary to change to other business occupations.

There is considerable variety in practically all branches of publishing. Only a small percentage of employees would be required to do much travelling. Unions for members of the editorial staff have not been organized to any extent in Canada. However, it may be that these unions will shortly become very important, since they are beginning to function in Great Britain and the United States.

Bookbinding

High school education is not considered absolutely essential either for entrance to or success in this occupation. Neatness, care, an artistic sense, good powers of observation, the desire to learn, and pride in achievement are considered the necessary personal qualifications for a bookbinder. General good health, eyesight and nerves are the necessary physical traits. Individuals who have weak lungs should not consider this vocation for their life work.

The Work; Apprenticeship. There are three main branches of the work: (1) cutting; (2) ruling; and (3) forwarding and finishing. Bindery workers fold, assemble and stitch the work, making it ready for its cover. Chiefly women are employed in this work, although men are frequently employed in supervisory and certain machine operating positions.

Application for work as an apprentice should be sent to the secretary of the local bookbinders' union. Apprentices are engaged by the shop and are admitted to the union by a vote of its members. Bookbinders, then, have some control over the number of persons entering the trade. In Edmonton 1 apprentice is allowed for 1 or 2 journeymen, 2 for 4 men, 3 for 9 men, and 1 for each additional 5 journeymen. The applicant should be between 18 and 25 years of age.

Apprentices usually start cutting, and receive training in at least two of the above three branches. In Edmonton the apprenticeship for men is a five year period. In Calgary it is a four year period for men and three for women. Rates of wages are determined by agreement between the union and the employer. The apprentice scale in Edmonton is as follows:

1st year	25% of journeyman's scale
2nd year	30% of journeyman's scale
3rd year	40% of journeyman's scale
4th year	50% of journeyman's scale
5th year	65% of journeyman's scale

The following table indicates the rate of wages for journeymen:

Bookbinders and rulers	85c per hour
Foremen	90c per hour
Journeymen	40c per hour
Cutting machine operators	62½c per hour

Workers are paid time and one half for the first three hours of overtime and double time for all work after that and for Sunday work. No union man may accept a position in a shop where back wages are owing to another union man. Union shops employ only union men. Apprentices pay 85c. a month to the union; journeymen pay $2.60 a month to the union.

Working Conditions. There is no compulsory retiring age for these employees, nor is there a pension scheme in which they may participate. Unions provide certain death benefits, the value of which depends on the length of membership in the union. Wages from the firm are discontinued if an accident or sickness forces an employee to be absent from work.

Opportunities of obtaining employment are greater in the larger cities. Advancement depends upon ability and business conditions. The hours are fairly regular, so that bookbinders have regular leisure hours which they may use in any way they desire. They have complete freedom with respect to political and religious beliefs.

The work, due to the fumes from molten lead, may have some effect on health and eyes.

Metal Products

Approximately 57% of the wage-earners engaged in manufacturing in Alberta in 1931 were employed in the above branch of the industry. Blacksmiths, boilermakers, car repairers and builders, welders, fitters, machinists, mechanics, and moulders find employment in work dealing with metals and metal products. Jewellers, watch makers and platers are engaged in work dealing with the precious metals. Battery makers and repairers, instrument and appliance assemblers find employment in the making and repairing of electrical apparatus.

The following table shows the average earnings and the average length of the working year for some of these workmen in Calgary and Edmonton.

TABLE XXXIX

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN THE METAL PRODUCTS INDUSTRY IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

Occupation Group	Employees No.	Average earnings $	Average yearly work Weeks
Blacksmiths	213	692	29.0
Blacksmiths' apprentices	10	320	28.5
Boilermakers	103	856	33.0
Car builders and repairers	294	874	37.2
Electric and oxy-acetylene welders	61	1,025	41.5
Machinists	525	872	35.0
Machinists' apprentices	33	330	30.7
Mechanics	1,421	650	33.2
Jewellers, watchmakers	60	1,085	45.0

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Machinists

Training and Qualifications. Any students who are thinking of becoming machinists should finish three years of high school education and then take a technical school course. Technical courses include such studies as mathematics, machine drawing and mechanics. It is also necessary to learn to measure accurately and to manipulate the tools used by machinists.

These workmen must be energetic, accurate, attentive to detail, reliable and sober. Good health and a fairly strong body are necessary. Any defects in hearing or vision would offer serious handicaps. It is best to start training for this trade between 15 and 18 years of age.

The actual practical work may be learned as an apprentice in contract shops. An apprentice is required to serve under an experienced machinist for a period of five years. He learns the method of laying out the work, working out running shifts, shrink fits, press fits, gear and thread cutting, and general machine work. Training obtained in machine shops is of great value in attempting to find employment in many branches of engineering.

Apprentices are usually paid about 25 cents an hour when they begin work. They receive regular increases during their training period. Journeymen receive from 70 to 85 cents an hour. From this it may be seen that it would take a machinist from 5 to 7 years, after beginning his apprenticeship, to reach a home-supporting position. Unions are found in all the larger shops. These organizations have had considerable influence on wages. Machinists may be paid on an hourly, weekly or commission basis.

The Work and Hours. The work includes the dismantling of machines, making of new parts, assembling the parts and putting the machine in working order.

Screw cutting and marking out the work to be machined in the most economical way are further duties. A machinist must also keep the lathes cleaned and oiled, and tidy up the shop. He deals mainly with things and secondarily with ideas. Foremen in the larger shops must deal more with ideas and men and less with things.

Work may be obtained in railway shops, textile works, ship building firms, general engineering shops, oil drilling outfits, automobile factories, marine engineering, and indeed almost anywhere that machinery is being used.

The working hours for the majority of machinists are from 8 a.m. to 12 noon and from 1 p.m. to 5 p.m., for 5½ days a week. Week-day overtime work is paid for at the rate of time and a half, and Sunday work at double time. Public holidays are usually observed, but machinists are not paid during any vacations that they may take.

Unions. Insurance. Unions have been organized in this trade, with a resultant effect on wages and on the number entering the trade. One apprentice is allowed for each shop and 1 for every 5 journeymen. Changes in management do not usually have any effect on the position of the workmen.

There is no compulsory retiring age for employees in the average shop; nor is there a pension plan. A workman's pay stops in case he is injured and forced to lay off work.

A real workman derives considerable satisfaction from doing his work well. He feels that he is contributing to the safety, convenience and comfort of the other members of society. He may spend his leisure hours in any activities that he desires.

The work of the machinist tends to be somewhat monotonous. However, in this changing age, new machinery is constantly appearing. This tends to relieve the work of some of its monotony. As a rule very few machinists are required to do any travelling. They have complete freedom with respect to their political, social and religious activities. On the whole this is a healthful occupation.

One machinist has said that the demand for men in this field is not so great as it was 20 years ago because of the introduction of many labor-saving devices. However, a study of the following table reveals that this is hardly an accurate statement. Alberta's total population increased 96% between 1911 and 1931, while the number of machinists increased 220% in the same period of time. The demand depends to a great extent on general economic conditions.

TABLE XL

NUMBERS OF MACHINISTS IN ALBERTA, 1911 TO 1931

Year	Machinists gainfully employed No.	Total population No.
1911	286	374,663
1921	767	588,454
1931	913	731,605

NOTE: Machinists and millwrights were classified together in 1921.

Source: Canadian census reports, 1911, 1921, 1931.

Specialists. There is a great demand for specialists during good times. It would seem, moreover, that the demand is increased as new labor-saving devices are introduced. Specialists are required in automobile factories, refrigerator manufacturing plants and printing shops. In Alberta the demand is for all-round workmen. Greater opportunities are to be found in industrial centres. Application for employment should be made to the manager or employment official in the engineering or industrial plant in which employment is sought.

Oxy-acetylene and Electric Welders

The Work. There were 106 men engaged in this occupation group in Alberta in 1931. Of these, 95 were employees. There was considerable unemployment even among these workers. Approximately one half of the employees lost some time during the year ending June 1, 1931. About 20% of the total working year of all employees was lost through unemployment.

High school education is not absolutely necessary for any one who desires to become a welder. However, university courses in metallurgy, architecture and engineering would be very valuable for a workman who seeks advancement to the better positions. Since welding is now required in practically all industries, it would seem that a qualified welder should be able to find employment in some branch of industry. He might obtain work with oil drilling outfits, garages or the maintenance departments of large factories. The work includes grinding and chipping preparatory to the welding of large castings; pre-heating of castings and the setting up and tack-welding of fabricated steels; welding for all types of machinery and with various types of metals; and finishing the job by grinding, filing, shaping and turning. The preparations for the actual welding are usually done by an apprentice. The actual welding is done by an experienced welder. The apprentice does the filing and grinding after the welding has been done. The apprentice is also expected to keep the shop clean.

Qualifications. Individuality, perseverance, ingenuity and trustworthiness are essential characteristics for both owners and employees. The owner should also have a pleasant personality and the ability to meet people. Any one with poor eyesight or hearing or a generally weak constitution should not consider entering this occupation. These workmen need to have good mechanical ability and sound judgment. Welders must be able to visualize a problem and its solution. As the number of uses for the process, in both construction and repair work, increases, so too will the demand for experienced workmen. The evidence is that only about 10% of present welders can be called first class workers.

Training. There are two ways of learning the trade. The Provincial Institute of Technology and Art offers a six weeks' course. Training is offered in both oxy-acetylene and electric arc welding. The courses studied include the theory and practice of the above two types of welding, metallography and pipe, aeroplane and sheet-metal welding.

In the second place the trade may be learned by serving an apprenticeship for two or three years. The beginner is first taught to prepare the job for welding, and then the correct welding procedure. Later he advances to simple jobs and thus gradually attains the skill and knowledge necessary for the more difficult tasks. He may be paid $8 to $12 a week during the first year, $15 the second and $18 the third year.

Pay. Hours. Experienced welders receive from 60 cents to one dollar an hour. Sometimes they are paid on a commission basis. There are no welders' unions in Alberta, although an attempt is now being made to organize them. Work may be obtained in job welding shops, refineries, oil fields, construction shops, iron works, machine shops, garages and blacksmiths' shops. Apprentices are not in any great demand at present, but an experienced welder has a good chance of getting employment. The duties are much the same from day to day, although the nature of the work varies from job to job.

The hours are fairly regular. Emergencies, requiring overtime, may occur. Workmen are usually paid at the rate of time and a half for work they do after hours. The working week varies from 5½ days to 6 days. Salaried employees are usually given 1 or 2 weeks' annual vacation with pay. As a general rule public holidays are observed.

Future of the Occupation. This is a new field which is definitely in a state of growth. Welding is largely replacing riveting in steel construction work. Flame-cut shapes are being arc-welded and are replacing iron castings. As this field develops, metallurgists, draftsmen, and designing engineers will be required. In Europe, Eastern Canada and the United States there is a heavy demand for engineers in this field, as well as for welders. The greater opportunities are to be found in industrial centres and in districts in which a building program is in progress.

Advancement depends mainly on ability. Employers are enabled to contract for more difficult jobs if their employees have had extra training. Hence, specialist's training and knowledge is almost necessary in order to keep up with the new developments and to retain one's position. Every type of welding has its own techniques. Pipe line, tank, structural steel, aeronautical and automobile welders have their own particular methods. Much of the work, then, is highly specialized, and requires expert knowledge of how to treat the various alloys. It is the youngest and fastest growing trade in industry. Increasing use of machinery and the proven superiority of welded joints over rivets will result in an ever-increasing demand for welders. Welders seldom continue to receive pay during an absence from work caused by illness or accident.

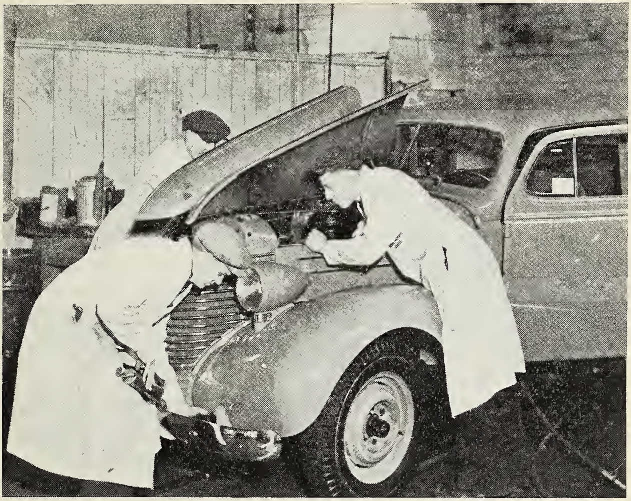
Importance of the Work. Welders get their satisfaction from performing some difficult job or successfully repairing some machinery whose breakdown has been delaying operations at some industrial plant. Welding probably offers excellent opportunities for exercising initiative and originality. Its importance lies in the fact that it is the most economical method of repairing and constructing machinery. This trade, then, eliminates the necessity of replacing expensive machines and also tends to produce better machines. The modern automobile practically demands the services of welders in its construction. This work has made possible modern metal office equipment and furniture. Welding has effected savings through the elimination of unnecessary weight, and by reducing the amount of labor and material required.

Welders have complete freedom with respect to political and religious activities. They are not usually required to do much travelling. Safeguards to health are always stressed and care is taken to guard against nauseating gas fumes from zinc oxide and from carbon monoxide. The work is, however, hard on the eyes, and the fine metallic dust may have ill effects on the respiratory organs.

Car Repairers

Car repairers should have as much high school education as they can get. Academic education should be followed by a course at the Institute of Technology and Art or at a technical school. This training should be of great value in obtaining employment and promotion.

Qualifications. Good car mechanics may be promoted from manual to executive work or to such supervisory positions as foremen or service managers. They may become specialists in one branch of the work, such as, for example, used car appraisers. The qualities necessary for obtaining this advancement include honesty, relia-



bility, perseverance, patience, willingness to learn and work and the ability to meet people. Good eyesight, hearing, muscular strength, health and a liking for machines and machinery are required in car repairers.

The Work. The all-round car repairer is expected to be able to do many tasks. He may be required to do electrical and sheet metal work, painting, vulcanizing, battery work, radio repairing and installing, upholstery work, welding, machine work, woodwork, and body and engine repairing. From this it is clear that a car repairer must have good general mechanical ability and knowledge. The larger firms would have specialists in many of the above departments.

Training. Training for the work may be obtained at technical schools, by serving an apprenticeship or by taking correspondence courses. Some automobile industries offer training to apprentices. The mechanic who hopes to succeed in his work must have a high grade of manual skill in order to examine, dismantle, recondition, assemble and adjust the various mechanisms common to automobiles. He must be able to detect trouble, analyze the cause and make the necessary repairs. He can do this only if he understands the underlying principles that are involved. This knowledge is best obtained from technical schools which offer both practical and theoretical work. The lectures include mathematics, drafting, business practice and the theory of the operation of motor cars. Ample practical work on automobiles is given at the school.

An apprentice is required to serve a training period of 3 years. This is followed by an "improver" year, spent under the supervision of a skilled mechanic. The apprentice might start as a gas attendant, advance to the service floor, to the grease rack, the tool room and the welding and painting departments. The following table gives a general idea of the wages a beginner might expect during this training period:

First six months	$12.50 a week
Second six months	$15.00 a week
Second year	$17.50 a week
Third year	$20.00 a week
Fourth year	50c to 60c an hour

Transferability of Training. Car repairers are required in garages, service stations, logging camps, lumber mills and by transportation companies. The training is very flexible and so is valuable in case mechanics desire to transfer to other fields. They may find employment in aeronautics, diesel engineering, tractor work, in power plants or on ships.

Beginners deal mainly with things and ideas. Those men who are in the more responsible positions must be able to deal with persons, and consequently must have pleasing personalities. The work is repetitive to a certain extent, but there is also a need for initiative and originality if one is to be successful. Some employees may be required to do a certain amount of office work.

Wages. A great range is found in the earnings of car repairers. Wages depend on the locality, the firm and business conditions. The average competent mechanic might expect to receive about $100 a month. Certain specialists such as car painters or body repairers may be paid as high as $300 a month. Even in good times a young man should not expect to be able to support a home for at least 5 years after beginning his training. Advancement depends mainly on ability. Wages may be paid on a monthly, hourly or commission basis. There is no definite rate of increase in salary. Car repairers' unions have not yet been organized in Alberta. The number entering the occupation is determined by supply and demand. A provincial law provides employees with the means of collecting wages.

There is evidence to show that at present there is a lack of *skilled* workmen, but an oversupply of unskilled workers seeking employment as car repairers. The demand for specialists is constantly increasing, but of course the extent and nature of this demand depends on local conditions. Many small towns are in need of skilled mechanics and, no doubt, this need will be filled as conditions improve. Application for employment should be made to the owner, manager or foreman of the firm in which a workman seeks employment.

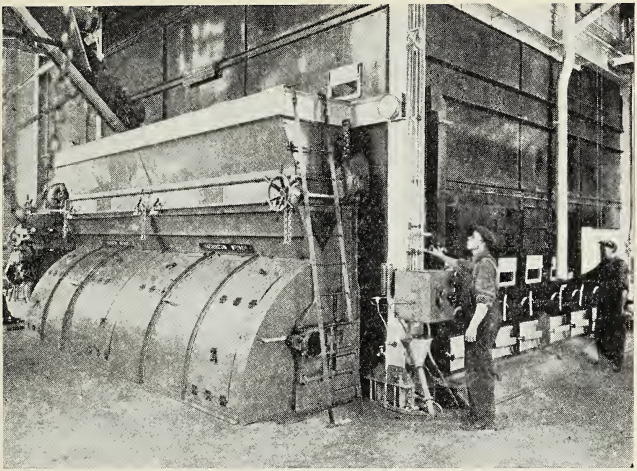
Hours of Work. In the larger city shops the hours are fairly regular. In the country, however, the mechanic may be called upon to do work at almost any hour of the day or night. The hours are especially irregular during the busy farming season. Work after hours is usually paid for at the regular rate. Car mechanics are required to work 6 days a week, and sometimes on Sundays. Public holidays are not usually observed, although special arrangements may be made so that some men work on one holiday and others on the next. Some of the salaried employees may be granted two weeks' annual holiday with pay.

Advantages and Disadvantages Found in this Work. There is no compulsory retiring age and no pension scheme for car repairers. If an accident causes a man to be absent from work, he may continue to receive his pay, depending upon the employer and the terms of his employment.

Mechanics get their satisfaction from solving a mechanical difficulty and from the fact that they are making a necessary contribution to the pleasure, comfort and safety of the public. There are opportunities for self-advancement within the occupation, for there is always something more to be learned about the work. Some jobs may affect the health, lungs, eyes and nerves. Car repairers and workers in allied fields enjoy complete freedom with respect to social, political and religious interests.

Production of Power

There were 1805 men gainfully employed in Alberta in 1931 in the production of electric light and power. Of these 1798 were wage-earners. From this it would appear that workmen in this industry have very little chance of becoming owners or employers. A total of 735 men lost time because of unemployment. These men



POWER STOKER

lost a total of 17,188 weeks, or 19% of the total working time of all employees.[1]

This is a comparatively new branch of industry, and is still in a state of growth. While openings are rather scarce at present, the demand will no doubt greatly increase as general conditions improve. Naturally greater opportunities are to be found in industrial centres. Application for employment should be made to the officials of power companies or municipal plants.

Training. Any students who are seriously thinking of entering this field or any of its closely allied branches, and are desirous of being successful, should complete senior matriculation and then take an engineer's course at a university. Of course not all jobs in this industry require this training. Those students who are unable to obtain the education outlined above might do well to take a two year course at the Institute of Technology and Art. These workmen need a good training along mathematical and scientific lines, together with technical work and practical experience. Workers have a greater chance of being successful if they have special aptitudes along mechanical lines. They would be wise to plan on entering the industry between 18 and 30 years of age. They must be alert, careful, energetic, steady and with a good measure of self-confidence. General good health and strength and possession of all senses are very necessary physical traits.

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[1] Adapted from Vols. VI and VII, 7th Census of Canada, 1931.

TABLE XLI

EMPLOYMENT AND UNEMPLOYMENT OF CERTAIN WORKERS IN THE PRODUCTION OF ELECTRIC LIGHT AND POWER IN ALBERTA, 1931

	Gainfully employed No.	Wage-earners			
		No.	Losing time No.	Losing time %	Time lost %
Dynamo and motor-men switchboard operators	60	60	22	37	16
Boilermen, firemen	317	316	101	32	15
Hoistmen, cranemen	179	179	116	65	31
Pumpmen	111	111	26	23	9
Stationary engineers	1,073	1,072	442	41	20

Source: Adapted from Vols. VI and VII, 7th Census of Canada. 1931.

Some men enter the occupation with a minimum of high school education and get their training by serving a four-year apprenticeship, training for service work, or as linesmen and meter readers. The following table indicates what an apprentice might earn after the first 6 months:

First year	57c per hour
Second year	62c per hour
Third year	70c per hour
Fourth year	80c per hour

After taking a technical school course a worker might expect to start work at about $75 a month. University graduates would probably receive about $100 or $150 a month. Salaries range up to about $500 a month, but probably average between $150 and $200. An employee might expect to take from 5 to 7 years after obtaining permanent employment to reach a modest home-supporting status. However, this depends on the branch of the work and the qualifications of the worker.

The following table indicates the earnings of a few employees in the production of power in Calgary and Edmonton in 1936.

TABLE XLII

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN THE PRODUCTION OF ELECTRIC LIGHT AND POWER IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Managers	8	4288	52
Boiler firemen	126	882	40.2
Hoistmen, cranemen	34	682	26.2
Stationary engineers	418	971	35.7

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Some of the fields in which these men might expect to find employment are in the generation of power at central electric stations, in the distribution of power, telephony, radio, street railway service and in the manufacturing of domestic appliances and electrical goods. The present tendency is to specialize in some branch of the work. Advancement means that the worker must be capable of accepting greater responsibility and must have the ability to form his own decisions. The work also changes from general labor to supervision or designing. Executive ability is the determining factor in attaining the higher positions. There is no definite rate of advancement, but extra training is usually instrumental in obtaining promotion.

Hours. Working hours are usually from 8 a.m. to 12 noon and from 1 p.m. to 5 p.m. Work between 5 p.m. and 10 p.m. is paid for at the rate of time and a half. Double time is allowed for work done between 10 p.m. and 8 a.m. and on holidays. Employees are usually required to work for 5½ days a week. They receive public holidays, and salaried workers are given two or three weeks' annual vacation with pay.

In some districts unions have been organized to uphold the rights of individuals. Civic or government employees might be affected by a change in government, but changes in the management of private companies do not usually have any effect on the employees.

Pensions. There is no compulsory retiring age for these workers. Some companies have a pension scheme. Salaried men continue to receive pay if an accident or illness forces them to be absent from work. Pay usually continues for a period of two weeks, but the length of their service determines whether they shall receive pay for a longer period.

This is recognized by society as being a very important industry. There are many opportunities for engaging in stimulating pursuits and for receiving inner satisfaction from the work. The advantage taken of these opportunities depends on the individual. Whether the work is repetitive or allows for originality and initiative depends on the particular work that the workman is doing. Some phases of the work require the employee to do a great deal of travelling. Most workers have complete freedom with respect to their political and religious beliefs, although some civic and government officials might find their political activities somewhat restricted. Ordinarily the work has no ill effects on the health of the average individual.

Well Drillers

Qualifications. Well drillers should take special interest in such high school courses as mathematics, general science and mechanics. While high school training is not considered absolutely necessary, students should get as much high school training as possible. A petroleum engineer's course is recommended as being particularly valuable. Courses in steam or mechanical engineering are also very useful for a man who would advance to a higher position. Drillers must have such personal characteristics as sobriety, reliability, vigilance, steadiness and a sense of responsibility. They must be physically sound and well built. Defective eyesight or hearing or other physical defects would be detrimental. It is best to enter the occupation between 20 and 35 years of age. Personal references from reliable sources should accompany an application for employment.

Training. Drillers usually serve a term of from three to five years under a boss driller as a helper and advance according to proficiency and labor demand. Valuable training may be obtained at the Colorado School of Mines and the University of California. The training one receives in this work may be applied in many other allied fields; for instance, as salesman of oil well supplies and machinery, or as a lease scout. After 5 years of training a man might expect to be a second driller.

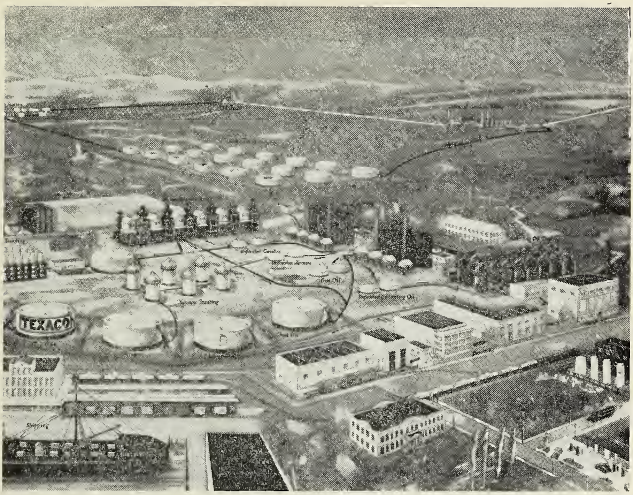
TEXACO
TEXACO
BIG CHIEF
AUTO SERVICE
TEXACO

By courtesy of Texas Company of Canada, Limited

MODERN STREAM-LINED AUTO SERVICE

Illustrating the modern trend in service station technique. Housed under the one roof are all the service and repair requirements of the motorist and truck owner, as well as facilities for the sale of cars. The station also serves light lunches and refreshments.

Earnings. There is not a regular wage scale for any oil field employee. Helpers might receive $1.00 an hour for an eight-hour day; engineers and derrickmen, $1.50 an hour and drillers $18.00 a day. The average salary for a driller in Alberta is about $10.00 a day. The salary is paid on a day rate and overtime is paid at time and a half. A driller might expect to be able to support a home two years after obtaining steady work, but this depends to a great extent on conditions in the oil industry. Unions



By courtesy of Texas Company of Canada, Limited.

Pictorial Story of Oil From Well to Market

The above drawing illustrates the progressive story of petroleum and its products in their diversified passage from the well to the market. In the background is shown the oilfields where petroleum in its natural state is tapped far beneath the surface of the ground. From there the course of the crude oil in its process of manufacture into so many essential products, is graphically shown. The natural gas is shown being piped to the plant at the right, and from there into the big industrial centre in the extreme right background.

have had no effect on wages in Alberta or in regulating the number of entrants into the occupation. Provincial legislation provides the employees with legal measures for collecting wages.

The Work. The driller is in charge of from 5 to 15 men. He must be able to handle machinery which is usually steam-driven. He must operate the drilling equipment and superintend the pipe-running. He is responsible for the entire operation of installing the machinery. The helper does general labor work around the well. The derrickman does the work around the derrick and looks after the general upkeep of the drilling pumps. The assistant driller must keep the drilling machinery in order and be able to operate it if necessary. The engineer is in charge of steam boilers and is responsible for making any repairs that are necessary. From this it is evident that as a man advances from the position of helper to driller, he must assume greater responsibility and be able to deal with men as well as with things and ideas.

A good driller may, if he has the proper abilities, advance to such positions as those of tool pusher, field superintendent, general superintendent, manager and managing director.

The head driller is in charge of operations at one well. The tool pusher sees that the drillers are supplied with the necessary equipment and may be in charge of a number of wells. The field superintendent is in charge of one or more gas or oil fields. The general superintendent is in charge of all operations in all fields.

Drillers are required to work 8 hours a day. Hours of work may vary, because men are required to work in shifts. Drillers usually work 7 days a week and do not usually receive public holidays.

Openings. In fields where there is active drilling or developments are in progress, experienced men with good qualifications are usually in demand. At the present time Alberta seems to be entering an oil-production age and during the immediate future many experienced drillers may be in demand. Specialists are required, but a specialist is developed only by experience. There is considerable activity at the present time in the Turner

Valley field in Alberta. Some work is also going forward in the Wainwright and Foremost areas. Application for employment may be made to the drilling superintendent of an oil or gas field.

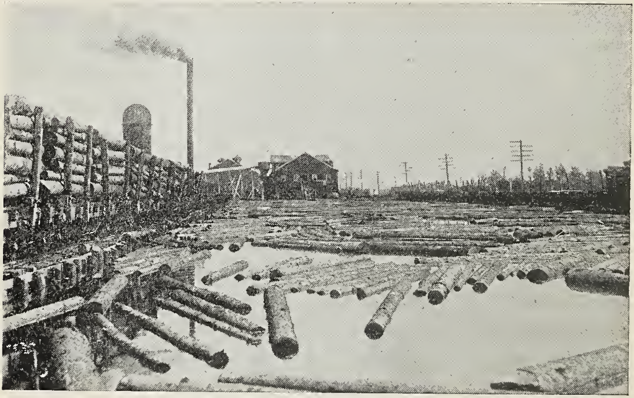
Advancement is not regular and depends primarily upon merit. At present advancement is rather slow, but as conditions improve there will be more chance for promotion to more desirable positions.

Other Features. Some oil companies retire their employees at about 60 years of age and may give them a pension based upon length of service and amount of earnings. Opportunities for profitable and stimulating pursuits are somewhat limited. The driller receives his inner satisfaction from the feeling of a job well done and that he is engaged in the production of a necessary commodity. Associates are usually congenial. The work is mainly repetitive, but occasions may arise which require the use of initiative and originality. As a rule, drillers live a rather unsettled life since they may be required to move to another centre after they have finished a well. They have complete freedom in their political, social and religious activities. On the whole, this is a healthful occupation although there may be some strain on the nerves and sometimes the work is quite dangerous.

CHAPTER VII

Building and Construction

Ever since man gave up his nomadic habits and began to live with other men in communities he has required permanent types of buildings. But he has not remained satisfied with the earlier types. On the contrary he has been demanding greater comforts and more conveniences. Despite the fact that present homes, schools, places of business and manufacturing plants are greatly improved over those of our forefathers, the present demand is for more improvements. One of the more recent advances is air conditioning, which is being installed in dwellings, theatres and offices in order to improve living conditions.



The Mill Pond of a Saw Mill

At the present time the building trades, along with other industries, are suffering from existing economic conditions. In Canada in 1929 the amount expended on construction amounted to $576,651,800. In 1933 the amount spent on building declined to a new low level. In 1936 the amount was back to $162,588,000. With returning prosperity building will again hold a prominent place among the industries.

Construction and Its Relation to Other Industries. "The construction and building industry is not only the most widespread in its operation, it is one which expands most rapidly in good times, when it attracts great numbers of general and casual workmen—a characteristic which explains the high rate of unemployment from which the industry periodically suffers. Again, apart from the effects of cyclical fluctuations of general business conditions, the construction industry is decidedly seasonal, although new types of construction and mechanical improvements are making it possible to work steadily on all branches of construction the year round. Conditions in the industry are being transformed as the result of the introduction of new types of construction. Nevertheless, in the winter there is a serious contraction, especially in outside operations, while in the other seasons the contractors employ a much larger number of men, casually engaged, than can be retained throughout the year. A considerable number of the men are in no sense skilled artisans and the supply of unskilled men is generally in excess of the demand.

"Activity in construction is of particular interest not only to those engaged in the industry itself but to those concerned with the supplying of its raw materials, such as lumber, steel, cement, paint, glass and hardware. All of these latter industries are prosperous when the construction industry is active, and depressed when it is at a standstill; again, the effects of their activity and depression are felt throughout the whole field of industry, so that the current conditions in the construction industry, react powerfully upon the whole economic life of the nation." (Canada Year Book, 1937.)

Qualifications and Training. The boy who enters any of the building trades need fear no inferiority, for each of these is just as necessary and important as any "white-collar" job. Further, he is engaging in one of the most healthful occupations he can enter. On the other hand, it should be noted that employees in the building trades are rather seriously subject to accidents. Physically-strong boys are required for most of these occupations. Practical men with a thorough knowledge of the work of the various branches of the industry, as well as considerable knowledge of their own, are needed. They should be able to estimate and calculate rapidly and accurately. They need enough knowledge of architectural drafting, so that they can read blueprints, and must have a knowledge of the strength of materials and the stresses and strains to which materials are subjected. They should have good ability in algebra, geometry and arithmetic. A good mastery of English is necessary in order that they may give instructions and prepare and interpret agreements and specifications.

The building trades demand honest men. It is very easy to use, in many parts of the building, materials which are cheaper than those required by the specifications. This may give the builder greater immediate profits, but he who practises such deceptions will not be as successful as the man who builds honestly.

The building trades require unskilled, semi-skilled and skilled laborers and administrative officers. Individuals who have a thorough training in school and shop may advance from lesser skilled occupations, through those of higher skills to such positions as foreman, general contractor, sub-contractor or building superintendent. Men in these latter positions receive higher pay because of the more responsible nature of the work.

Employment and Unemployment. The following table will give some idea of the amount of employment and unemployment that exists among the workers in the building and construction industry in Alberta.

TABLE XLIII

EMPLOYMENT AND UNEMPLOYMENT OF CERTAIN MEMBERS OF THE BUILDING INDUSTRY IN ALBERTA, 1931

		Wage-earners			
	Gainfully employed No.	No.	Losing time No.	Losing time %	Time lost %
Builders and contractors	559				
Brick and stone masons	286	257	219	85	47
Carpenters	4,096	3,355	2,434	73	39
Electricians and wiremen	676	614	255	42	20
Painters and decorators	1,159	776	558	72	37
Plasterers and lathers	327	270	225	83	49
Plumbers, steam fitters, gas fitters	570	462	256	55	26
Sheet metal workers	271	207	131	63	28
Masons' apprentices	12	12	9	75	38
Carpenters' apprentices	77	69	43	62	29
Electricians' apprentices	50	49	18	37	24
Painters' apprentices	45	41	21	51	19
Plumbers' apprentices	60	56	18	32	16
Sheet metal workers' apprentices	39	35	15	43	25

Source: Vols. VI and VII, 7th Census of Canada, 1931.

While reading the descriptions of some of the above occupations in the following pages it will be wise to refer back to this table in order to see how many men are employed and how much unemployment exists in each trade.

The following table shows how seriously this industry has been affected by the depression.

TABLE XLIV

VALUES OF CONSTRUCTION CONTRACTS IN ALBERTA FROM 1929 TO 1936

Year	Amount $
1929	29,159,600
1930	25,081,700
1931	14,334,700
1932	5,948,200
1933	2,825,900
1934	3,489,400
1935	5,893,000
1936	6,297,400

Source: Canada Year Book, 1937.

A survey of this table indicates that the building industry had its best year in 1929 and its worst in 1933. The value of the construction contracts in 1936 was approximately double the 1933 value, but was only one fifth of the 1929 value.

Wages and Earnings. Most of the tradesmen in this industry work 8 hours a day for 44 hours a week. The following table indicates the scale of wages for these tradesmen in Calgary in 1935.

TABLE XLV

WAGES OF EMPLOYEES IN THE BUILDING INDUSTRY IN CALGARY IN 1935

Occupation	Wages per hour $
Bricklayer	0.90
Carpenter	0.75
Electrician	0.90
Painter	0.75
Plasterer	0.90
Plumber	0.90
Sheet metal worker	0.80
Laborer	0.35–0.45

Source: Canada Year Book, 1934-35.

The following table indicates the average yearly earnings of men in Calgary and Edmonton in 1936 who were engaged in this industry.

TABLE XLVI

Average Earnings and Weeks of Employment of Wage-Earners Engaged in the Building Trades in Calgary and Edmonton in the Year Ending June 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Brick and stonemasons	135	276	10.2
Carpenters	1,323	410	18.5
Electricians and wiremen	294	937	35.6
Painters and decorators	544	445	23.1
Plumbers, steamfitters, gas fitters	275	690	28.2
Sheet metal workers	135	651	27.9

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

This table indicates very clearly the great amount of unemployment that exists among these workers. The average wage per man per annum in the building trades in Canada in 1935 was $655. Alberta workmen received the highest average annual wage, namely, $786. Workers in Prince Edward Island received $700, the second highest average annual wage.

Dangers of the Trade. The following table indicates the relative dangers of engaging in these trades as compared with other occupations. It gives the percentage of all fatal accidents in Canada which occurred in the building trades. Remember that only 6.22% of the total number of gainfully employed males in Canada in 1931 were engaged in these occupations. From this it would appear that workers in this industry are subject to more accidents than are most workers.

TABLE XLVII

PER CENT OF FATAL ACCIDENTS WHICH OCCURRED IN THE BUILDING TRADES IN CANADA, 1931-1936

Year	Per cent of fatal accidents occurring in the building trades
1931	18.2
1932	12.7
1933	8.0
1934	11.7
1935	10.0
1936	9.5

Source: Canada Year Book, 1937.

Before going on to a discussion of some of the occupations open to boys in these trades it is worth mentioning that 9 boys, or 2.3% of the boys who answered the questionnaire shown in Appendix B desired to enter this branch of industry, and that 8 of these 9 boys desired to be carpenters. Only 3.4% of all gainfully employed males in Alberta in 1931 were engaged in building and construction.

Builders and Contractors

Office men and field men are needed in the building and contracting occupation.

Qualifications and Training. Let us first consider the *office worker.* High school education is not considered necessary for the majority of workers, but the more education one has the more likely one is to be successful. Technical or business education would be very valuable for some of the office workers. A man with a civil engineer's degree may, if he shows the necessary ability, advance to one of the better positions.

Men who are keen observers, fond of detail, diplomatic and have the ability to make friends are necessary in this branch of the industry. Individuals who are high strung and nervous are working under serious handicaps. These men should be good at arithmetic and able to read plans. They should be able to form conclusions in which they have complete confidence. This, of course, comes only with experience. They should have good health, and indeed, the ability to keep well is of more importance than great physical strength.

Wages and Hours. Many men have entered this occupation soon after their 16th birthday. No particular standards are set for those seeking employment, but as a rule the applicant with the greater amount of education receives the greater consideration. A good man will be very useful after 5 years of service, but it usually takes at least 10 years for a man to become an efficient executive. The wages of office workers during the first 5 years range from $40 to $80 a month. More experienced men may be paid as high as $500 a month, although the average is probably about $200 or $300.

Office work may include the making up of the pay roll, keeping books and costs, drafting, purchasing materials and estimating the cost of construction and repairs.

At the present time there is not a great demand for these men, but an increase in prosperity will create a demand for them. Application for employment should be sent to the heads of construction and engineering organizations.

Eight hours a day for 44 hours a week are the usual working hours. Overtime may be required on certain occasions; only those employees engaged on an hourly basis receive any extra pay for this. Public holidays and annual holidays are given to salaried officials. There is no retiring age nor any pension plan for these men.

As a general rule the work is not hard on the nerves.

Employees enjoy complete freedom with respect to their social, political and religious activities.

Training and Qualifications. Let us now consider the *field work* of the builder and contractor. Present day successful contractors are not limited to university or even high school graduates. There are men who have started as laborers, and who, by persistent effort, have advanced through several stages of skilled labor. By taking care of their earnings they have eventually accumulated enough capital to do small jobs. Later they were able to contract for small houses, and still later for schools and commercial buildings. However, this does not mean that a boy should not get all the education he can. It simply means that he can be successful even though circumstances make it impossible for him to get an advanced education. Further, it should be remembered that he will undoubtedly be in competition with more men who have an advanced education than were those men who started in the contracting business 20 years ago.

A certain amount of aggressiveness and the ability to meet people and to inspire confidence are absolutely necessary for success as a contractor. A contractor must be mechanically minded, with an intense interest in good workmanship, and a good leader. He should have good health and vitality. Weak, nervous individuals would be working under a serious disadvantage in this occupation.

Special training along technical lines, such as drafting, estimating and construction would be very valuable. The number entering this occupation is not limited by tests, but entirely by supply and demand.

The work itself can be learned by working for a contractor, and studying in one's spare time in order to prepare oneself for promotion to better positions. Beginners are usually paid from $8 to $10 a week. After 5 years one might have acquired enough knowledge to justify promotion to an executive position. Foremen, in normal times, are paid from $1,300 to $2,000 a year, and superintendents from $2,000 to $2,500. The work is very seasonal in the West and is usually paid for on an hourly basis.

The Work. Field work requires such men as mechanics, straw bosses and superintendents. Men are required to make out time sheets and cost cards, to do field drafting and general planning. In the more responsible positions there is more administrative work and more responsibilities in pricing materials, co-ordinating deliveries of materials, watching labor costs and seeing that the quality of workmanship and materials is satisfying the specifications.

Opportunities for employment and advancement in field work are not very good at present, but an improvement in the building industry will no doubt remedy this.

Most employees work 44 hours a week. Salaried employees are given annual holidays with pay. Employees who are engaged by the hour do not receive any pay during any holiday they may take. They do not usually have any holidays as such, as they generally have a good deal of unemployment in the course of the year.

There is no retiring age nor any pension scheme for builders and contractors. Unions have had very little influence on wages or in regulating the number entering the occupation. Some unions offer insurance against illness. Wages from the firm do not continue during a lay-off caused by illness or accident. The workman may continue to receive pay if the accident occurred during working hours.

General contractors are given considerable recognition by society. They have plenty of opportunities for exercising their originality and initiative. Some contractors are required to do considerable travelling and to be absent from home for varying lengths of time. They enjoy complete freedom in their social, political and religious life.

Brick and Stone Masons

The importance of the bricklayer is apparent to all. In some districts many of the dwellings are of brick. This material, with its present variations in form and color, makes it possible for the bricklayer to give to each structure an individuality of its own. This tradesman is in demand not only for general building construction but also for such specific industrial structures as retorts and boilers. However, despite the seeming importance of this tradesman, there is very little work for him in Alberta.

Qualifications and Training. High school education is not demanded of would-be masons. However, if a student is thinking of becoming a mason he should get from 2 to 4 years of high school training. Bricklayers must be careful, neat, precise workmen who take a pride in good workmanship. Average strength and good eyesight are necessary physical qualifications. Any physical deformity in feet or legs would he a serious handicap to a bricklayer. Application for employment may be made to a working bricklayer or mason. It is wise to enter the occupation between the ages of 16 and 24 years. There are at least two unions in Alberta, but at the present time they are not having much influence on wages or on the number permitted to enter the trade. The unions charge small fees. They will act to uphold the rights of the members in case they should have a dispute with employers.

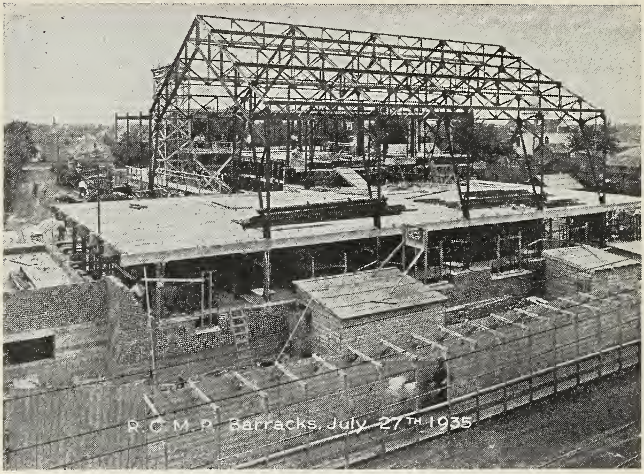
Wages and Work. The trade is learned by working under the direction of a master tradesman. The training thus obtained is not easily utilized in seeking employment in any occupation other than bricklaying. There were 12 apprentices in Alberta in 1931. Wages for experienced men vary from \$1.00 to \$1.50 an hour, but employment is very irregular and seasonal, and depends on conditions in the building trades.

The bricklayer must have a good knowledge of the materials with which he works. He may be required to build foundations, walls, bridges and arches. Advancement in the larger firms means a change from manual to supervisory work, including, possibly, accounting, bookkeeping and estimating costs of jobs. The work has considerable variation from day to day and from job to job, and so is not usually considered monotonous. The hours, 8 hours a day for 5½ days a week, are usually regular. Certain jobs may require overtime, in which case the employee is paid at the rate of time and a half. Bricklayers usually observe public holidays, but, since they are paid on an hourly basis, they do not receive pay during any holidays they may take. Due to the large amount of unemployed time experienced by most bricklayers they do not take annual holidays.

Bricklayers are not forced to retire from work at any definite age, nor have they a pension plan in which they may participate. Wages from the employer do not usually continue during an absence from work which is caused by sickness or accident, unless the accident occurred during working hours. Bricklayers enjoy complete freedom with respect to their social, political and religious activities. This occupation has no harmful effects on the health or nerves of the tradesman.

Carpentry

This trade may be divided, roughly, into three types of work:



(1) Bench work in a factory. Carpenters in this work are engaged in making doors, window frames, sash and stairs.

(2) House construction. In house construction the carpenter works on frames, joists, studdings, rafters and on exterior and interior finishing.

(3) Concrete-form structure. This work is a means to an end. In modern fire-proof concrete buildings practically none of the carpenter's work remains in the finished structure. However, without his trade a building would be practically impossible.

The work of each of the above is similar in many respects and yet each does require a certain amount of special training.

Training and Qualifications. Apprentices are accepted between the ages of 17 and 21 years. They are required to serve a training period of about 4 years. There were

69 apprentices in Alberta in 1931. Applicants are usually engaged on a month's probation and if they seem to have the proper qualifications and show some promise of success they are accepted as apprentices. They must show that they are industrious, careful workers. They need to be able to think and plan ahead of the actual stage of the work. During the winter months, when work is slack, the apprentice should study drafting, architecture and such subjects and, if possible, attend a technical school. The training thus obtained does not fit one for any other occupation, although there are many branches of other industries which require the services of good carpenters. Some carpenters have become cabinet makers. (See the section dealing with Cabinet Makers.)

Carpenters and apprentices are required to work 8 hours a day for 5½ days a week. There is a fixed rate of pay for apprentices as follows:

First year	50% of journeyman's scale
Second year	65% of journeyman's scale
Third year	80% of journeyman's scale
Fourth year	90% of journeyman's scale

The apprentice starts on the rougher work and, as he shows increasing ability, is advanced to the finer types of work. The present wage scale for carpenters is 75 cents an hour. A section boss is paid 10 cents more per hour. Carpenters' unions are organized in Alberta, but they are not having much influence on wages or in regulating the number entering the trade. They will act for employees who may have disputes with the employers.

As a rule the hours are regular, although overtime, at the rate of time and a half, is occasionally required. Public holidays and annual holidays may be taken by employees, but they do not receive any pay during these holidays.

There is no retiring age nor any pension plan for carpenters. Pay stops during a lay-off that is caused by sickness. Carpenters enjoy complete freedom with respect to their political, social and religious activities. They can always be learning something more about their vocation and have many opportunities for using their initiative and ingenuity and for building useful articles for the home.

Electricians and Wiremen

Training and Qualifications. Students desiring to become electricians should plan on entering the trade between 16 and 24 years of age. They should get as much high school education as possible. Technical schools and the Institute of Technology and Art give a very useful training which is even more valuable after part of the apprenticeship has been served. Correspondence schools also offer instruction for electricians.

The nature of the work requires constant carefulness as to detail, conscientious application to duty and the ability and desire to co-operate with one's fellow workers. In order to be successful, electricians must be prepared to work industriously so as to develop a maximum degree of skill. The larger cities in Alberta require journeymen to pass an examination before they are granted a license to operate in those cities.

The Institute of Technology and Art gives a two-year course for these workmen. The course is designed to cover the field in a general way and to give a good understanding of electrical work. There are many branches of the electrical trade, and training in one branch is very valuable to a workman who desires to enter some other branch of the work. The training given at the Institute covers almost all electrical work, but apprenticeship is necessary in order to become an efficient workman. Auto and electric service, radio and power line installation and service, and telephone service are some of the branches in which an electrician might obtain employment.

The apprenticeship requires a training period of four years in Alberta. In many shops there is no fixed salary but apprentices usually start at about $5 to $6 a week. The training period is reduced to three years in the case of apprentices who have completed the course at the Institute. The Canadian General Electric Company at Peterborough, Ontario, operates a training school for electrical apprentices.

Wages. Trade unions have had some effect on wages for electricians in the building trade in Alberta. Journeymen electricians receive approximately 90 cents an hour. In steam coal mines a maintenance electrician receives $4.90 for an 8 hour shift; in domestic mines from $90 to $250 a month. This latter workman, however, usually works only during the winter months. The chief electrician in a coal mine usually receives a monthly salary; his assistants are paid by the shift.

Beginners deal mainly with things and ideas; foremen and employers must also deal with men, and must have a good technical background.

Opportunities. The largest field in Alberta for electricians and wiremen is in the building trade. Coal mines and industrial plants also require many of these tradesmen. Opportunities are, at present, very limited and many more students are taking the course at the Calgary Institute than the trade can well absorb. It is estimated that even in the event of a building boom the industry could not use more than a small percentage of the workers who have been trained for the trade.

Possibilities of obtaining work with local contractors are definitely limited by trade conditions. The largest mines may employ from 3 to 5 electricians; factories, from 1 to 2 and ships, from 1 to 4. The need for specialists is very limited in Alberta, except possibly for a few motor winders and radio service men.

The greatest opportunities are to be found in Edmonton, Calgary, Lethbridge, Drumheller, the "Coal Branch" and the Crowsnest Pass. Application for work may be sent to electrical contractors, power companies, telegraph companies, and radio repair shops.

Inner Satisfaction From the Work. Electricians receive their personal satisfaction from the fact that they realize that they are contributing materially to society by keeping the lights burning and the wheels of industry turning, and by making possible certain pleasures for the other members of society. There are branches of this occupation in which a workman receives a great deal of pleasure from exercising his ingenuity and initiative. Some electricians in the building trades may be required to be away from home for considerable periods of time, but such is not the case for those engaged in the industries. These tradesmen are free to hold any religious or political beliefs they desire. And finally, electricians need suffer no ill effects to their health and nerves as a result of engaging in their trade.

Painting and Decorating

This is one occupation in the building trades which has considerable harmful effect on the health and nerves. Lead poisoning, lead fumes and the benzol in quick-drying paints take a heavy toll on the health of painters. Individuals who are planning to enter this occupation should, then, have good general health, nerves and eyesight.

Training. Many workers have a minimum of academic and technical training, but technical education, taken with an apprenticeship, would assure earlier attainment of efficiency. No tests or examinations are given to individuals seeking employment as painters. The applicant must, however, receive the approval of a master painter before he can receive journeyman rating from the trade union. A certain industrial act allows 1 apprentice to every 3 journeymen in the shop.

Three years is the minimum length of apprenticeship, but 5 years is the usual training period. Almost every city and town in Alberta has a painting and decorating shop, so that a young painter might be able to serve his apprenticeship without leaving his home, if he can persuade the local shop to accept him as an apprentice. The training thus obtained can be used in the building trades, in sign-painting and, with some further training, in designing book and magazine covers. There were 41 apprentices registered in Alberta in 1931. Of these 21 lost 431 weeks due to unemployment. The greatest opportunities are to be found in the larger centres. Work is usually best obtained by applying to a master painter or to the trade union.

Wages. Unions have been somewhat responsible for obtaining standard wages for employees in this trade. The following table gives a general idea of the rate of wages in Alberta:

Apprentices	1st year	20 cents per hour
	2nd year	40 cents per hour
	3rd year	60 cents per hour
Journeymen	Edmonton	75 cents per hour
	Calgary	80 cents per hour

It is only very rarely that a journeyman receives as much as $1 an hour.

If steady work could be obtained it would, then, be possible for a worker in this trade to be able to support a home in from 4 to 6 years after beginning his apprenticeship. As in the other branches of the building trades, however, the work is very irregular and seasonal. Then, too, there are very few steady jobs at automobile and furniture painting.

The rate of wages is set by agreement between the union and the employer. The union in Edmonton has been fairly successful in maintaining the fixed wage. Unions have in some cases helped individuals to collect salaries, attempted to regulate the number entering the trade and protested against the employment of non-union workers.

The Work. Painters and decorators in the building trades are engaged in papering or painting various surfaces such as stone, wood, iron, or plaster, for purposes of cleanliness, preservation and beautification. Advancement in this occupation includes a change from the rougher to the finest types of work and from an employee to manager or owner. In the latter cases a painter should have a knowledge of bookkeeping and contract making. Less skilled painters deal mainly with things. As they become more skilled they must learn to deal also with ideas. Employers and managers must be able to meet the public. Painters are needed for interior and exterior house decorating, in the maintenance of public buildings and factories, in ship building, manufacturing and building construction.

They work 8 hours a day for 5½ days a week. The hours are fairly regular. If overtime is required employees are paid at the rate of time and a half.

There were 1,159 painters and decorators in Alberta in 1931. Of these, 776 were classified as wage-earners. This means that 383 out of the total number are employers, workers on their own account or unpaid family workers. It is estimated that one out of every ten painters becomes an employer.

Advantages and Disadvantages of the Occupation. There is no compulsory retiring age nor any pension scheme for these tradesmen. Certain unions provide insurance against sickness, accident and accidental death. Wages from the employer do not continue during an absence from work caused by sickness or accident.

Workmen in this trade enjoy complete freedom with respect to political, social and religious privileges. The work is not usually considered monotonous, and painters are free to exercise their originality and initiative. A few painters are required to do considerable travelling and to spend considerable time away from home. It is an occupation in which the worker can enjoy considerable satisfaction in contemplating his work, which has definitely contributed to the cleanliness and healthfulness of homes and buildings. He has also increased the value and desirability of the property by making it more attractive and appealing.

Plumbing, Steam Fitting and Gas Fitting

These are really three distinct occupations, requiring somewhat different training and qualifications and having different unions and rates of wages. It is necessary, however, to deal with all three in a general manner and at the same time give a few specific facts about each.

Qualifications and Training. Initiative, reliability, good judgment and a co-operative spirit are necessary for individuals who desire to enter these trades. Good eyesight is essential and physical strength is desirable. Steamfitters should be strong, since they handle heavy material. Regulations in Calgary limit entrance into this occupation to boys between the ages of 16 and 20 years.

A technical school education would be very useful in obtaining employment and advancement. A knowledge of mechanical engineering and the ability to read blue prints would be very valuable. Mathematics, mechanics, machine drawing, physics and chemistry are important subjects for these tradesmen. Courses in plumbing, steam fitting and gas fitting may be obtained from the International Correspondence School.

Apprentices are required to serve a 5-year training period under a skilled mechanic. Frequently the apprentice is also required to attend special classes in technical education. There are no fees for this training. In Calgary there is an Apprentice Committee which pays one third of the cost of the necessary books. The remaining cost is evenly divided between the apprentice and the employer. Tools are supplied by the employer. Journeymen plumbers supply their own tools; steam fitters are provided with the necessary equipment by the employer.

The training, in Calgary, is as follows:

(1) The apprentice serves 3 years as a junior, acting as a helper to a master tradesman. At the end of this period he is required to write an examination.

(2) In the fourth year he is granted a license and begins to use the tools.

(3) The fifth year is known as the "improver" year. During this time he must study certain specified subjects as well as develop his skill.

The following table gives the Calgary Union wages for apprentices:

1st year	$ 9.00 a week
2nd year	11.00 a week
3rd year	13.00 a week
4th year	15.00 a week
5th year	0.75 an hour

Steam Fitting. Apprentices for steam fitting in the C.N.R. shops must serve a 5-year training period. They start work at 35 cents an hour. After the first 6 months they receive an increase of 3 cents an hour every 6 months until they reach the rate of 79 cents an hour—the rate of pay for skilled workmen. This is a well-organized trade in railway service. Advancement in railway shops depends on seniority. Railway employees are pensioned at 65 years of age. They are required to contribute a part of each month's salary to the pension fund. In case a steam fitter is accidently hurt in the course of his work he receives two thirds of his usual pay during his absence. His work includes pipe fitting, erecting and dismantling work in the shop, and welding pipes in locomotives, shops and buildings. Railway men are given an annual holiday of one week with pay.

Plumbing. Unions have had considerable influence on wages paid to plumbers. The rate is set by agreement between the trade union and the employer, but in any case it must not be less than the minimum set by a provincial law. The minimum wage that can be paid to apprentices is $5 a week. Wages for experienced journeymen vary from 50 cents to 95 cents an hour. The foreman receives 10 cents more per hour.

The work of the plumber includes cutting and threading pipes, setting up dies, making and reading blue prints, selecting the proper fittings, planning installations and installing and repairing plumbing fixtures.

Apprentices deal mainly with things, journeymen with both things and ideas and employers and managers with both of these and also with men. The work is not usually considered monotonous, for, while the principles remain the same, there is considerable variation in material and fixtures from one day to the next.

Specialists and Openings. Only in very large centres, where there might be a demand for workers who have specialized in oil-burners or in ventilating, is there any great demand for specialists. In this province most workers need to be "all-round experts." The best opportunities for obtaining work are to be found in those districts in which a building program is in progress. Work may also be obtained at oil wells, coal mines, power plants, waterworks and in railway shops and industrial plants. At the present time there is an oversupply of these tradesmen.

An 8 hour day and 44 hour week are in effect for these workmen. The hours are regular, but there are occasions when overtime is required. Time and a half is usually allowed for overtime work. Workers in these occupations receive regular public holidays, but not annual holidays. They may take a vacation if they desire, but their pay is discontinued during the time they are away from work.

Unions have been successful in limiting the number of entrants. Shops are allowed only 1 apprentice for every 5 men in the shop. Unions have also upheld the rights of individuals during a disagreement with employers. There is no compulsory retiring age nor pension scheme for these tradesmen, except in the case of railway workers, or men who are in the Civil Service.

Inner satisfaction arises from the thought that by his trade the worker has contributed something real and necessary to the general welfare of society. The work entails a good deal of repetition, but master workmen must have initiative and originality. Even more than in some of the learned professions have these tradesmen freedom with respect to their social, political and religious activities. The work is reasonably healthful, but the periods of idleness are a strain on the nerves.

Sheet Metal Workers

Work and Wages. The work done by these tradesmen includes the installation of heating, ventilating and air-conditioning systems, ornamental architectural work and fire-proofing. The trade can be learned by serving a five-year apprenticeship. The types of work the apprentice can learn will depend on local conditions and the class of work that the journeyman performs. The working day for an apprentice is 8 hours in length and his wages may vary from $4 up. Before becoming an apprentice a student should obtain as much high school education as he can, and then, if possible, take a technical school course. These workmen should have good health and physique.

There is no definite system of regulating the number entering the trade, but in Edmonton there is an agreement between masters and journeymen which does much to restrict the number of apprentices. According to this agreement 1 apprentice is allowed for each 2 journeymen in the shop. Journeymen's earnings have been as high as $3,000 a year, but they are very much less than that now. The present wage scale is about 75 cents an hour.

Advancement from journeyman to foreman, superintendent or estimator brings an increase in both earnings and responsibilities. Beginners deal mainly with things, but as they advance they will be required to deal more with ideas and persons.

This is an old trade which is, however, in a state of growth. It depends mainly upon the prosperity of the building trade. Opportunities are greatest in the larger centres. While there is some need for specialists, the "all-round" worker is more certain of employment in Alberta. Applications for work should be sent to the proprietor of a sheet metal shop.

Hours. The hours are usually quite regular, and are from 8 a.m. to 5 p.m. with 1 hour off for lunch. If overtime is required the employees are paid at the rate of time and a half for work they do between the hours of

5 p.m. and midnight. Double time is the usual rate for work done between midnight and 8 a.m. and on Sundays and holidays. Employees do not usually receive pay during any holidays they may take.

Wages from the employer do not usually continue during the time an employee is absent from work because of illness or accident. Certain death-benefits are usually included among the benefits to be derived from membership in a union.

Much the same may be said of these tradesmen as has already been said of other members of the building industry with respect to the inner satisfaction to be derived from the work, and in regard to freedom in their political, social and religious activities. Generally speaking, this is a very healthful occupation.

The sheet metal worker, in industries other than the building trades, may be required to use a variety of tools, such as chisels and hammers, and to handle giant power presses and shapers. As a rule each workman learns one operation, so that apprenticeship is not necessary for these workmen.

CHAPTER VIII

TRANSPORTATION AND COMMUNICATION

Because of its great importance in modern civilization, transportation is one of our main industries. It may be divided into 5 main branches, namely, steam and street railways, and road, water and air transportation. Each of these has a common element in that the workers are charged with the safety of the lives and properties of others.

By Courtesy of Canadian National Railways.

A MODERN STREAM-LINED TRAIN

In this chapter we shall deal with a few of the more important jobs on the steam railway, with air transportation and with 2 or 3 of the methods of communication. It may be thought that an undue amount of space has been given to air transportation in view of the fact that there are really comparatively few persons employed in this department. However, we believe that a careful consideration of this industry is important for two reasons:

(1) There is no doubt that there is at present an increasing demand for properly qualified men, and that this demand will continue to increase for some time.

(2) No less than 65 boys and 10 girls out of 815 students who were questioned as to what they would like to do for their life work chose aviation. This means that far too many students are looking forward to a career in aviation. Hence it was thought that a careful discussion of the qualifications and training necessary for these workers was essential in order to counteract, to some extent, the glamor of aviation which has been aroused by public hero-worship of certain outstanding aviators. Young men and women must understand that *this is a very exacting occupation* as well as a very glamorous one.

Wage-Earners in Transportation. The following table indicates the number of wage-earners engaged in trans-

TABLE XLVIII

MALE EMPLOYMENT AND UNEMPLOYMENT IN THE MAIN BRANCHES OF TRANSPORTATION AND COMMUNICATION IN ALBERTA IN 1931

	Employees No.	Losing time No.	Losing time %	Time lost %
RR. Transportation	7129	2253	32	15
Water Transportation	138	59	43	20
Road Transportation	3424	1366	40	18
Other Transportation and Communication	2178	415	19	9

Source: Adapted from Volume VI, 7th Census of Canada, 1931.

NOTE: There were 695 female workers in "Other transportation and communication." Of these 113 lost time, that is, 9% lost 16% of the total possible working year of all female employees.

portation and communication in Alberta in 1931. The table deals only with wage-earners because nearly all the gainfully employed individuals in this industry are employees.

The following table indicates the number of gainfully employed men and women engaged in transportation and communication in Alberta in 1931. It also indicates some of the more important occupations in each branch of the industry. Details of occupations in railway transportation are not given, as these appear in a later table.

TABLE XLIX

GAINFULLY EMPLOYED WORKERS IN A FEW BRANCHES OF TRANSPORTATION AND COMMUNICATION IN ALBERTA IN 1931

Branch and occupation	Male No.	Female No.
Railway Transportation	7189	
Water Transportation	166	3
Road Transportation	4923	4
Owners, Managers of Cartage, Transfer	233	1
Owners, Managers of Garages	400	2
Chauffeurs, Bus Drivers	339	1
Truck Drivers	2143	
Teamsters, Draymen	1490	
Other Transportation and Communication	2274	695
Aviators	36	
Postmen, Letter Carriers	378	4
Telegraph Operators	423	42
Radio Station Operators	16	
Telephone Operators	50	576
Linemen, Cablemen	362	
Messengers	517	1

Source: Volume VII, 7th Census of Canada, 1931.

Railway Transportation

The following table shows the conditions of employment and unemployment among employees in railway transportation in Alberta in 1931. Notice the high percentage of unemployment among brakemen and firemen.

TABLE L

MALE EMPLOYMENT AND UNEMPLOYMENT IN THE MAIN OCCUPATIONS OF RAILWAY TRANSPORTATION IN ALBERTA IN 1931

	Employees No.	Losing time No.	Losing time %	Time lost %
Ry. Officers—steam	144	3	2	1
Foremen—steam	384	41	11	3
Baggagemen & Expressmen	182	32	18	9
Agents—Ticket and Station	541	56	10	5
Brakemen	730	383	53	27
Conductors—Street Car	76	10	13	6
Locomotive Engineers	691	141	20	7
Locomotive Firemen	561	326	58	30
Motormen	232	38	16	5
Porters—Railway	78	17	22	11
Railway Conductors	391	52	13	4
Sectionmen and Foremen	2,466	908	37	18
Switchmen	445	185	42	19
Yardmen	161	53	33	12

Source: Adapted from Volume VI, 7th Census of Canada, 1931.

The Work. As an occupation railroading has ever held a great attraction for those persons connected with it, and especially is this true of those engaged in the practical side of its many activities. The railroader must apply all his energy towards serving both the public and his company. These efforts provide a very interesting and attractive vocation. However, it must be noted that the chances of obtaining a start in this work are much fewer than they were some years ago. Nor is it likely that there will ever again be such a demand for railroaders as there was in the past, although a return of more "normal" conditions would undoubtedly result in a great improvement in this industry. Apprenticeship is the only way in which one can learn any of the railroading occupations.

The following table gives an idea of the recent trends in railroad employment and the average salaries and wages to be found in the industry.

TABLE LI

AVERAGE SALARIES AND WAGES AND NUMBER OF EMPLOYEES IN RAILROAD TRANSPORTATION IN CANADA, 1928 TO 1935

Year	Employees No.	Average Salaries and Wages $
1928	187,710	1,533
1929	187,846	1,548
1930	174,485	1,538
1931	154,569	1,485
1932	132,678	1,365
1933	121,923	1,299
1934	127,326	1,283
1935	127,526	1,356

Source: Canada Year Book, 1937.

Railroading required the greatest number of employees in 1929 and the least in 1933. Average earnings were largest in 1929, and least in 1934. The industry seems to have recovered somewhat in these respects since 1933 and 1934.

Educational Requirements. Times have changed in railroading even as they have in all other industries. Whereas formerly many men with a minimum of education found employment as railroaders in some one of its many branches, today the high school graduate is receiving more and more consideration, especially for executive and supervisory work. These graduates must, however, be willing to start work in minor positions and gradually advance to the more desirable executive offices. Business courses are necessary for young men and women seeking clerical and office work.

The following table indicates the earnings and weeks of employment of railway workers in Calgary and Edmonton in the year ending June 1, 1936.

TABLE LII

Average Earnings and Weeks of Employment for Male Wage-Earners Engaged in Railway Transportation in Calgary and Edmonton in the Year Ending June 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Station Agents	67	1,800	48.8
Dispatchers	26	2,550	50.0
Conductors	163	1,790	46.1
Brakemen	265	1,130	35.8
Engineers	290	1,865	43.7
Firemen	211	995	34.2

The next table is taken from "Statistics of Steam Railways of Canada" for the year ending December 31, 1934,

TABLE LIII

Average Salaries and Wages and No. of Employees in Certain Occupations in Railroad Service in Canada, 1934

	Employees No.	Average salaries $
Station Agent	4,963	1,585.25
Dispatcher	429	2,751.84
Passenger Conductor	612	2,557.53
Freight Conductor	1,532	2,374.60
Passenger Brakeman	1,382	1,732.85
Freight Brakeman	3,662	1,584.68
Passenger Engineer	790	2,971.38
Freight Engineer	1,902	2,643.82
Passenger Fireman	784	2,154.53
Freight Fireman	2,188	1,731.93

Source: "Statistics of Steam Railways of Canada" for the year ending Dec. 31, 1934.

a report issued by the Dominion Bureau of Statistics. It is of interest in that it indicates the differences in earnings of various railway workers and also the differences in earnings between men who are engaged on freight trains and those on passenger trains.

Station Agents

Qualifications. Students who are thinking of earning their living as station agents should complete 4 years of high school education. Languages, physics and geography should be included in their high school courses. A short term course in telegraphy would be very useful to a young man applying for work as a station agent. Some young men are taking a university course in commerce before entering railway service. Applicants are given examinations in penmanship, vision, color sense, hearing and a general medical examination. Agents need a well-developed sense of hearing and touch. They should have a good knowledge of general mathematics. They are also required to submit 2 or 3 letters of recommendation from reliable citizens.

Station agents must have the ability of capably meeting and dealing with the public. Adaptability to varied situations, reliability, sobriety and alertness are qualities found in successful agents. Any bodily deformity or injury, or any chronic ailment makes it difficult for a man to succeed as an agent.

Training. The general policy of most railways at the present time is to employ young men of at least 18 years of age to fill such positions as clerks or assistant agents. These men are given the opportunity to become familiar with station work and to learn telegraphy. As they show ability they are promoted to the position of telegraph operator, and later they may become station agents. The clerical training received by agents may be used in practically any other business occupation. A little extra training would qualify them as radio telegraphers.

Wages and Duties. Remuneration for an assistant agent is at least $60 a month. The usual initial salary for agents is from $125 to $134 a month, and ranging up to about $250, depending upon the seniority of the agent. Remuneration is made up of a monthly salary and a commission for certain departmental work such as express and commercial telegraphy. Agents never experience any difficulty in collecting their salaries. Unions have been very influential in determining salary rates. At the present time there are no openings in this occupation in Western Canada.

The duties of a station agent include: dealing with the public in the matter of transportation of persons, goods, monies and telegrams, and collecting and accounting for all revenues resulting from business transactions. Advancement means that the agent will be required to supervise the work of assistants instead of doing routine work. The duties of the average agent are somewhat the same from day to day, but this fact is relieved by the new situations which constantly arise.

The services of men who have had this training are required in railway transportation, by telegraph companies and steamship and land radio stations. However, the demand for such men is not very great at present. Employment in railway work is about 35% less than it was in 1930. Application for railway work should be sent to the "Divisional Superintendent of the Railway."

Other Features of the Work. Station agents work from 8 to 9 hours a day for 6 days a week. Overtime is paid for at time and a half rate but such work is avoided as much as possible. They receive public holidays and, after 4 years' service as telegraphers, 2 weeks' annual holiday with pay.

Unions are very effective in controlling the number of men entering this occupation. Only a sufficient number of men are carried on the "active list" to take care of any extra demand during the holiday season. Seniority determines who shall be carried.

Station agents retire from active service when they are 65 years of age. They are given a pension which is based on the salary they earned and the number of years of service. Each employee is required to contribute a certain amount to this pension fund.

Station agents enjoy a favorable position in the community. As a rule they work with other local authorities for the betterment and advancement of the community. Until an agent is appointed to a permanent position, he is required to do considerable travelling in his work as a relief agent. At times the work is very trying on the nerves, but as a general rule it has few ill effects on the health of the agent.

Railway Dispatchers

Qualification. The work of the railway dispatcher is usually considered to be one of the most trying kinds of work, both mentally and physically. Long life is seldom realized. The dispatcher works 8 hours a day under constant strain. Train movements demand constant attention, with a resultant heavy toll on health and nerves. Students should not, therefore, consider entering this occupation unless they have an excellent physique and constitution. If they are nervous or have a weak heart or weak kidneys they should not choose railway dispatching as their life work.

Dispatchers should have a quiet even temperament and the ability to co-operate with other employees. They must be willing to accept suggestions from those in actual traffic service, so as to move the traffic to the best advantage of all concerned and in such a way as to retain the goodwill of the other employees. This occupation is open to men between the ages of 25 and 35 years. Applicants must be in full possession of all senses, especially of hearing. They are tested on operating rules, signals and train orders before they can be appointed to a dispatching position. Application should be sent to the local superintendent. *Success as a telegraph operator or agent is the determining factor in becoming a dispatcher.*

Boys who have the necessary physical qualifications and are desirous of becoming dispatchers should plan on completing 4 years of high school education. A course in telegraphy and typing would be of great value to any one seeking employment as a dispatcher.

Training. Training for this work can be obtained only in a dispatching office. A telegraph operator who seems to show promise in this branch of work is given the opportunity of sitting in with a regular dispatcher for short periods of time so that he may gradually acquire a knowledge of the duties. This training may be of value in finding employment as a commercial operator or wireless operator on aerial craft or steamships.

The usual initial salary for a dispatcher is $225 a month. Experienced men may receive about $260. Wages are determined by the trade union and are paid on a salary basis, twice a month.

The Work. To become a dispatcher one must first serve in several other branches of railway work. Both ability and seniority govern advancement from the lower to higher positions. The assistant agent handles baggage and express and performs routine office work. A telegraph operator copies telegrams and train orders and does some office work. The station agent is in charge of the station. Finally, the dispatcher prepares and issues the orders governing the movement of all freight and passenger trains, and keeps the traffic moving. In general, he is responsible for directing and controlling the movements of all trains. In the more advanced positions the detailed work is entrusted to assistants and the main duty of the dispatcher is supervisory. Many dispatchers are also required to keep car records and perform certain clerical work. The duties are mainly repetitive but there are day-to-day changes and also seasonal changes in the work.

At present there is very little chance of obtaining employment or advancement in this branch of railway transportation. There were 55 employees listed as dispatchers in Alberta in the 1931 census. No figures on unemployment are available for that year. There is one "Chief Dispatcher" for each superintendent's division. Modernization, in the form of mechanization, may have considerable effect on the future of this occupation.

Other Features. Dispatchers work 8 hours a day for 6 days a week. The hours are usually regular. There are 3 shifts a day, so that some dispatchers are on night duty. If an emergency requires overtime, the dispatchers are paid at the rate of time and a half. They do not have public holidays but they are given an annual holiday of three weeks with pay.

Unions have agreements with employers that dispatchers are to be selected from the ranks of telegraph operators. Unions will act to uphold the rights of employees in case of a dispute with the employers.

Dispatchers retire from active service when they become 65 years of age. They have a pension to which they and the employer have each contributed similar amounts. Wages do not continue when they are absent from work because of illness or accident.

Railway transportation is an essential service in the modern world. The dispatcher is a necessary part of this service. The work is largely repetitive, but originality and initiative are outstanding characteristics required of the successful dispatcher. Outstanding men in this occupation may advance to the higher executive positions in the railway service.

Brakemen

The Work. Brakemen in passenger trains have fairly regular hours, but "brakies" on freight trains and on the "spare board" have very irregular hours, being subject to call at any hour of the day or night. They "line the tracks" so as to get the trains on the proper tracks, "pick up" and "set up" cars en route, inspect the train frequently at stops and "ride the tops'" on heavy hills in order to "brake the track easier." Advancement depends on seniority and means a change to cleaner work. Brakemen advance from freight to passenger trains and from the front of the train to the rear. Hours, too, are more regular on passenger trains. The duties are much the same from day to day, although there is some variation in the work which tends to relieve it of some of its monotony. Properly qualified brakemen may become conductors.

Qualifications. From this consideration of the work one can see that a great deal of academic education is not essential for the successful performance of the duties of a brakeman. However, advancement may depend to some extent upon proper academic qualifications. Special correspondence courses in railroad operation may be obtained from the International Course of Traffic Management.

The number entering the occupation is regulated by unions, which make provision for a sufficient number of "regulars" and "spares." Despite this fact there was a great deal of unemployment among brakemen in 1931.[1]

Quick thinking, alertness, care as to detail, geniality and sobriety are required of brakemen. In view of the fact that brakemen may become conductors, students should see if they have the qualities which are required of conductors. (See the section dealing with Conductors.) Good health, hearing and vision are very essential. Employment as a brakeman can not be obtained before the applicant is 21 years old. Applicants must pass a medical examination and an examination on standard rules and signals, and submit character recommendations from 3 reliable citizens.

Opportunities and Pay. It is some time now since inexperienced men have been required, but when one is taken on he usually works for a week with an experienced regular. If he seems to show promise he may be placed on probation for 6 months. He then usually obtains only part time work for several years. The rate of pay is settled by agreement between the unions and the employer. Brakemen are paid at the rate of $5 a run of 100 miles. At the present time there are many men in the service who have only part-time work. A maximum number of miles per month is allowed each regular brakeman by the union. The working hours depend upon the type of train. Long hours are required on way freights; medium, on through freights; and short, on passenger trains. Brakemen do not necessarily receive public holidays; nor do they have annual holidays with pay.

Brakemen are retired at 65 years of age with a pension to which both employer and employee have contributed. The value of the pension depends upon the salary earned and the number of years of service. Brakemen may obtain, through their union, group insurance against accident, illness and death. Wages from the company do not continue during a lay-off caused by an accident, unless the accident occurred while the brakeman was on duty.

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[1] (See table L).

Railway Conductors

The work of a conductor is very fascinating, for he is continually meeting new people. It is very rarely that a conductor leaves the service for employment elsewhere. Several reasons may be found for this fact. The wages are sure and above the average. Conductors are entitled to free transportation on any railway in America and enjoy special rates on boats and in hotels. As a rule the hours are not long, and once a conductor is on a scheduled run the hours are regular. However, before deciding on this occupation a student should ask himself if he has the necessary qualifications. In the first place, he should remember that he must first do the work of a brakeman, and so needs the qualifications of brakemen. Then, too, a conductor must be able to meet the public; he must be courteous, diplomatic, alert, sober and honest. He must be physically strong and should have clear speech, good vision and good hearing. Applications of men under 24 years of age are not considered. Each application must be accompanied by 3 character recommendations. High school training is not considered absolutely necessary for entrance into this occupation, but an academic background is always very helpful.

Training. There is only one way in which a man can become a conductor. He must spend at least 3 years as a brakeman and pass certain examinations set for conductors. Promotion in railway service depends mainly on seniority. However, other things being equal, the man with the advanced education is given more consideration when appointments and promotions are being made. When work is slack the junior conductor drops back to the work of the brakeman. This fact would account for the low percentage of time lost by conductors and the small number of conductors who lost time. (See table L.)

Conductors are paid on a mileage basis and are guaranteed 2,800 miles a month. They are not allowed to run more than 3,000 miles a month. The through-freight rate is about $6.25 per 100 miles and the way-freight rate is $6.77 per 100 miles. Unions play an important part in regulating wages.

The conductor is in charge of the whole train and all employees on the train. The careful observation of train orders is his most important duty, but all movements of the train are under his direct supervision. He is responsible for the safe movement of his train from terminal to terminal. He must be ready to handle any emergency that may arise. In fact he is everything from a bookkeeper to a section man and from a fireman to a diplomat. He is supposed to know everything about a railway and is responsible for everything that happens to his train.

Promotion consists of advancing from through freight to local freight and then to passenger trains. Each promotion increases his responsibilities. At the present time the chances of obtaining employment in this field are very limited.

As a general rule the working day is 8 hours, but this time may be exceeded since the crew is expected to take a train to its destination. Conductors do not receive public holidays. They may take annual holidays, without pay, at practically any time they desire.

Other Features of This Occupation. The number entering this occupation is determined by business conditions and the number retiring or otherwise leaving the service. Conductors are retired at 65 years of age with a pension which is based on the salary earned in the last 10 years of their service. There is at present no group insurance available for conductors. Wages do not continue during illness.

The work has no harmful effects on health or nerves. The conductor has ample leisure time to carry on a program of self-development or to engage in any hobby in which he may be interested. He has complete freedom with respect to his political and religious beliefs.

Railway Firemen

Unions have been influential in attempting to prevent overcrowding in railway firing. Work is obtained according to seniority, and firemen are not allowed to exceed a certain mileage in the course of each month's work. Despite these facts, of the 561 wage-earners listed as railway firemen in the 1931 census, 205 lost time because of "no job" and 121 because of a "temporary lay-off."

Qualifications. In view of these facts a student should carefully consider his personal qualifications and desires before deciding to enter this occupation. A railway fireman must be absolutely dependable, have good judgment and be able and willing to co-operate with his fellow-workers. He must be physically strong, with good health, eyesight and hearing. Ability increases with experience. The main duty is to keep up a full head of steam so that the engine can do the work required of it. Beginners are not accepted before they are 21 years of age. They are required to pass certain mental, physical and optical tests as prescribed by the Railway Commission. Higher academic qualifications are not, to any very great extent, considered essential for firemen.

Training and Earnings. Training starts in the roundhouse looking after engines, cleaning fire-boxes, refuelling and "wiping" engines going out on a run. As openings occur the prospective fireman will go out on the road as a "spare." As a general rule firemen are required to spend at least 9 months in the shop looking after engines.

Wages depend on the engine the worker is firing, and on the run. The average rate of pay is about $5.60 for 100 miles on the smaller types of engines. Earnings may vary from $50 a month to $160, depending on seniority. Under present conditions it is estimated that it would require from 10 to 15 years to reach a home-supporting status. Indeed the evidence is that the occupation is full for some time to come. Earnings are regulated by the Brotherhood of Locomotive Firemen.

Duties. Some of the duties include: (1) being on duty 45 minutes before the train leaves; (2) keeping up a full head of steam; (3) helping to take on water and coal; (4) seeing that all the necessary tools are on the engine; (5) checking the orders with the engineer and having the correct time; and (6) watching for signals and crossings.

Advancement in this occupation means that the fireman changes from the yard engine to freights and later to passenger trains as a fireman. Later he may become an engineer. Some men who had the proper training have become master mechanics or assistant superintendents.

If business requires it, and seniority permits, a fireman may become an engineer after 3 years of service, provided he has passed certain examinations and seems to have the qualifications necessary for this position. The best opportunities for work are to be found at railway terminals. The use to which this training may be put is restricted to railway work. That is, this training is of little use in seeking employment in other than railway work.

Hours. One hundred miles is the basic unit for the working day. Those firemen who are on scheduled runs enjoy fairly regular hours. Firemen on freights and those who are on the "spare board" have very irregular hours, being subject to call at any hour of the day or night. Firemen do not necessarily receive public holidays. They do not receive any pay during any holidays they may take.

Retirement is compulsory when firemen become 65 years of age. They are given a pension, the value of which depends upon their average earnings for the past ten years and the number of years of service. They can obtain group insurance against illness and death through their union, the Brotherhood of Locomotive Firemen.

Firemen receive their inner satisfaction from feeling that they are performing a very important work for society. The work is mainly routine, but is not usually considered monotonous. They are free to hold any political or religious views that they desire. There are not likely to be any ill effects on the health or nerves of one who engages in this work.

Locomotive Engineers

Training. An engineer starts work at about $6 a day and may earn from $240 to $280 a month. Rates of pay are determined entirely by trade union agreements with the employers, and depend upon the mileage and class of service; that is, rates of pay are different for passenger, freight, switching and work-train service.

How does an engineer advance to the more desirable work? Engineers started as wipers, advanced to firemen's positions and finally to engineers. They start work as engineers on yard engines and then advance to freight and later to passenger trains. Finally it should be noted that they also advance from the less desirable to the more desirable runs. It is possible for engineers to be promoted to executive positions and to become master mechanics, inspectors and instructors in special departments. The field is very limited at the present time even in the more populous centres and the well-developed industrial sections of the country.

A man must have 3 years' experience as a fireman before he is allowed to write the engineer's examinations. The final examination consists of 637 questions relating to breakdowns and repairs, electric dynamos and airbrakes. Applicants are required to pass an oral examination on all the written subjects. In order to master the material for these tests the fireman must study hard for 2 or 3 years. Advancement from wiper to engineer through all of the intervening stages, depends on union regulations. If more engineers are required, senior firemen who have engineers' certificates are promoted. This is the only way in which one may become an engineer. At the same time senior wipers would be advanced to firemen. If work slacks off the junior men are demoted to the next lower class of work.

Opportunities. It might be noted that very few men who have started at the bottom as wipers in the last few years will ever become engineers. There are two reasons for this. There are already a great many men qualified for the higher positions and our modern period of mechanization is causing the movement of qualified men down instead of up.

What are the duties of the engineer? On his engine this man reigns supreme, and he must not allow himself to be swayed from his duties, for he is an important part of a great machine. He may be called upon to make important decisions, which may result in the saving of many lives and of much valuable property, or in destruction and death if he makes the wrong decision. A mere technical knowledge of the machine he controls will not be sufficient to enable him to carry on his work of meeting trains and following orders, for a situation may arise which can be handled successfully only by the man who has a practical knowledge of railroading.

Qualifications. What are the personal qualities and the training which are necessary for success in this work? High school training is not necessary for the man who desires to become an engineer, but of course an academic education is always of great personal benefit. Nor is a technical training necessary. An engineer must have steady, well-controlled nerves. He must be able to make quick, accurate decisions. He must have an excellent physique. A man with poor eyesight and hearing or a weak heart has practically no chance of becoming an engineer. According to the 1931 census there were 691 locomotive engineers in Alberta. Of these 55 lost time because of "no job" and 86 because of a "temporary lay-off."

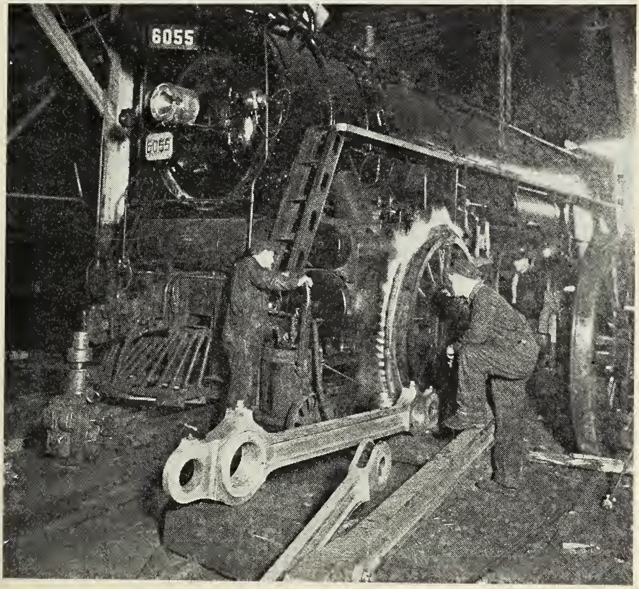
Hours. The working hours are very irregular for some workmen. From 5 to 8 hours, or a run of 100 miles, is considered the basic working day. Overtime, for which the usual rate of pay is allowed, may be required. As in most railroad work the engineer is paid on a mileage basis and union regulations limit him to a certain number of miles each month. He may have public holidays and annual vacations without pay.

Other Features. Engineers are superannuated when they become 65 years of age. Both employer and employee have contributed to the pension fund. Group insurance, through the union, may be obtained for protection against accident and accidental death.

The engineer is very important to society, since he is a necessary part of railway transportation, which is, as one engineer has said, "to the nation, what the arteries are to the body." Naturally this work requires much travelling, but the amount of time spent away from home depends on the "run" of the individual engineer. There is considerable eyestrain and a certain amount of nervous tension, which may have some effect on general health, especially if the engineer lacks a sound physique.

Railway Machinists

Qualifications. A technical school training, including such courses as drafting, machine construction and design, and mathematics would be a very valuable preliminary to the requisite 5 years of apprenticeship. Machinists



must be patient, persevering, mechanically-minded, industrious and reliable. The successful machinists are those who are able to pay attention to small details and take pride in a successful performance of a difficult piece of work. Lameness, poor eyesight and hearing or an impediment in speech would be serious handicaps in this work. Applicants for the apprenticeship must be between the ages of 16 and 21 years.

The apprentice learns such work as the laying out, fitting, adjusting, shaping, boring, slotting, milling and grinding of metals used in building, assembling, maintaining, dismantling and installing locomotive and engines operated by steam or other power. In railway shops the work pertains to engine repair, maintenance and operation, including the functioning of valves, rods, pistons, air brakes, wheels, bearings, electrical equipment and pumps. Training is to be obtained in round houses and repair shops, especially at Lethbridge and Ogden. This training is of value in seeking employment in contract shops, smelters, mines, power plants, auto and aircraft factories, sugar refineries and iron works.
(See also Machinists, P. 136).

Wages. Apprentices start work at about 30 cents an hour and receive 74 cents an hour during the last 6 months. Salaries for experienced men vary from 60 cents to $1.50 an hour, but probably average about 79 cents. Unions negotiate agreements as to wages and shop conditions. One apprentice is allowed for every 5 machinists in the shop and 1 for the shop.

As the machinist shows increasing ability he is advanced to more specialized work and deals more with men and less with things. Advancement depends mainly upon seniority, but ability is also considered. There is a certain amount of repetition in the work, but each new job may bring some distinctive feature which requires a workman to exercise his originality and initiative. At present there is very little demand for railway machinists, and indeed there is an over-supply. Application for work should be sent to: (1) works' manager; (2) district master mechanic; (3) divisional master mechanic; or (4) superintendent.

Hours. Machinists work 8 hours a day for 5 days a week. The hours are regular, but overtime may be required on certain occasions. Time and a half is allowed for work done after hours. Overtime is divided among all of the employees. Machinists may have annual holidays without pay. They usually observe public holidays.

Other Features. Railway machinists are retired when they become 65 years of age. A pension scheme came into effect in January, 1937. The value of the pension depends upon the wages earned in the last 10 years of service and the number of years of service. Some unions have a system of death benefits for members, the value of which depends on the number of years of service.

Machinists have complete freedom with respect to their social, political and religious activities. They are free to use their leisure time in any way they desire. The trade is somewhat detrimental to a workman of a nervous disposition.

Other Branches of Transportation and Communication

The work of letter carriers will be discussed in this section. A general survey of radio broadcasting, telephony and telegraphy will be given in the latter part of the chapter. Before going on to discuss the occupations offered by these methods of communication we shall, however, deal with aviation.

The following table gives some idea of the conditions of employment and unemployment to be found in some of these occupations.

TABLE LIV

EMPLOYMENT AND UNEMPLOYMENT IN CERTAIN OTHER OCCUPATIONS OF TRANSPORTATION AND COMMUNICATION IN ALBERTA IN 1931

	Employees No.	Losing time No.	Losing time %	Time lost %
Managers	303	5	2	X
Foremen—Telegraph and Telephone	90	6	7	2
Aviators	30	8	27	18
Linemen and Cablemen	362	123	34	15
Messengers	512	128	25	13
Postmen and Mail Carriers	378	15	4	2
Radio Station Operators	16	4	25	14
Telegraph Operators	423	116	27	13
Telephone Operators	50	7	14	7

X—less than 1 per cent.
Source: Adapted from Volume VI, 7th Census of Canada, 1931.

Air Transportation

WINTER TRANSPORTATION IN NORTHERN AREAS

Pilots and Air Engineers

Opportunities. The following statement is taken from the questionnaire which was filled in by an instructor in the Institute of Technology and Art: "It is my considered opinion that aviation in its various phases offers at present better opportunities for the right type of man with the right type of training than any other field of activity. Within two years at the most, the Trans-Canada Air Line will be in operation and most likely an air line from England to the East, via the North Atlantic, Canada and the Pacific. These developments will lend a tremendous impetus to Canadian aviation. Not only will the main route across Canada give employment to many, but in addition a large number of subsidiary 'feeder' lines will be established throughout the Dominion. All these will require skilled personnel on the flying end, on the ground and in administrative and executive capacities. In addition to all this, the expansion of the Military Air Arm in Canada and Britain will absorb all suitable candidates, for the next two or three years at least, who wish to adopt the Air Force as a career."

Commercial and transport pilots, air engineers and aeronautical engineers are all specialists in their own sphere. Aviation also affords a field for radio operators and electricians, the latter to maintain the air port lighting systems. Radio experts are also necessary to maintain the radio beacons and radio instruments of aircraft in proper operating condition.

It is to be noted that the recent expansion of the Royal Air Force and the Royal Canadian Air Force has absorbed a number of ex-aeronautical students of the Provincial Institute, and will no doubt absorb more in the future, both as pilots and as engineers. The R.A.F. is at present accepting for short service commissions any applicants of good physique and suitable personality who have the *approved training* in some branch of aeronautics. Without considering the possibility of another war this condition should continue to exist for the next 2 or 3 years at least. The expansion of the R.C.A.F. is likely to be speeded up in the next few years and should afford a good field for suitably trained men.

The greatest number of opportunities in English-speaking countries is to be found in Great Britain, where the supply, especially of trained mechanics, is altogether inadequate to meet the demand. The U.S.A. offers a good field which is, however, barred to patriotic Canadians because of naturalization regulations. In Canada the greatest opportunities at the moment are to be found in the East and North, but with the opening of the Trans-Canada Air Line, the Prairie Provinces, which are at present very backward in the development of flight, should be as good a field as any.

Changes in government would affect the situation to the extent that one government might do more to encourage flight than would another, but otherwise such changes would not have any effect on employees in aviation. Changes in management would not affect the individual any more than such changes in other occupations. A change in management is always a threat to the security of the individual.

Importance of Aviation. Aeronautics is making a great contribution to society. It is revolutionizing transportation in so far as mails, express and passengers are concerned, and affords a much faster, more comfortable, more interesting and cleaner mode of travel. This means a great saving of time, a speeding up of business and communication and a closer linking of communities. In Canada the recent opening up of the rich mining areas in the northland is due almost entirely to the aeroplane.

Associates are likely to be congenial. In fact, there seems to be a peculiar good-fellowship among those who follow aviation. There is very little monotony and very little repetition, except in factories. Almost every mission of a pilot is to some extent different from the previous one; every job of the air engineer presents its own distinct problems. There is usually, then, in both flying and ground work, great scope for initiative. There are great opportunities for self-development, for these occupations are demanding constant adaptations and the continual assimilation of new ideas. Pilots and engineers enjoy complete freedom with respect to their political, social and religious activities.

Under the term *aeronautics* may be included the occupations of pilot and the air engineer in civil aviation. Besides this branch there are also the spheres of military aviation and aeronautical engineering. Aeronautics also requires the services of many other workmen. (See Auxiliary Activities, Pape 217).

The pilot is concerned with the actual flying of aircraft from place to place; the air engineer maintains the aircraft in airworthy condition, repairing, overhauling and certifying machines as airworthy before and after flight, and after repair and overhaul. The field of military aviation also requires its flying and ground personnel.

The Pilot

Training. Senior matriculation is not necessary for an individual who desires to become a pilot, but it is highly desirable. He should have a year of study in a course of general aviation at a technical school which offers an approved course in aeronautics. By this we mean a course of instruction approved by the Civil Aviation Branch, Department of National Defence, Ottawa. The course offered at the Institute of Technology and Art has this approval. This course would then be supplemented by the necessary flying and ground school training. In order to qualify for a commercial pilot's license one is required to complete at least 100 hours of solo flying and 6 months of ground school work in connection with rigging, engine theory, aerodynamics, meteorology, airmanship and elementary navigation. This latter training may be obtained at any recognized air port. It should be noted that systematic training in the technology of aeronautical engineering can be obtained only at the Institute of Technology and Art and at some eastern institutions.

At least $1000 for fees is necessary in order to get the training for the commercial pilot's license. Board would cost about $250 and books $10. As a rule aviators begin work between the ages of 21 and 30 years, having started their training at any time after they became 17 years of age. Finally it should be understood that this training is *practically valueless for any other sphere of activity.*

Qualifications. What personality, character and physical traits should one possess if one thinks of becoming an aviator? The pilot must combine manliness with a certain amount of aggressiveness; he must not be slow in acting or in thinking. He must be courageous, resourceful, self-reliant, observant and dependable. He must have more than average intelligence. He must have a good physique and general appearance. Even the slightest physical, mental or nervous defect constitutes a fatal obstacle to success in this occupation. Good eyesight is absolutely essential. To become a qualified commercial pilot a very strict medical examination must be passed. Pilots must also pass flying tests and a written examination on the theory and practice of flying and elementary navigation. Would-be pilots must present first class recommendations as to character and general ability from reliable sources.

Earnings. Commercial pilots are initially paid from $100 to $200 a month. Experienced transport pilots earn up to $400 or $500 a month, but probably average about $250. A pilot, with luck, could probably be in a position to support a home about a year after starting his training. There is at present no definite rate of increase in salary. There are no unions except in factories. The professional societies do not interest themselves in the question of remuneration. Payment is usually on a salary basis, with additional pay for flying time.

Duties. The pilot is required to fly aircraft from place to place as required by the company for which he works. He is responsible for the observing and reporting of any defects in the aircraft, engine and instruments. Apart from these duties he may also be required to stow aboard heavy and bulky freight, such as machinery, or to volunteer for dangerous emergency missions and air surveys. As a transport pilot gains experience and reputation, he would be promoted from the operation of slower and smaller machines, carrying express and freight, to larger and faster machines carrying mails and passengers. When his flying days are over he might be retained by the company in an administrative or executive capacity, providing he has the necessary ability. Many of the leading men in commercial aviation in Canada, United States and Great Britain are ex-pilots. The work of the individual can be, and always is, closely observed.

Opportunities. There are several operating air lines in Canada, particularly in the North. It is also expected that the proposed Trans-Canada Air Line will give impetus to Canadian aviation and will greatly increase the opportunities for commercial and transport pilots.

Up to the present, the supply of commercial pilots has exceeded the demand, but this condition is passing. It was caused by the large number of qualified Canadian wartime pilots available and the comparatively small demand. These pilots are now, however, rapidly dropping out because of age, while the demand is increasing and will continue to increase during the next few years. At the moment there is no notable excess. Applications for employment should be sent to the manager, the managing director, or the chief pilot of an operating air line.

This is a new field which is but in its infancy. It is in a state of rapid and healthy growth, and it is altogether likely that the next 5 years will see greater developments than have been seen in the past 15.

Hours. The hours are very variable but 50 flying hours, involving about 70 hours on duty, is considered the average month's work. Pilots are usually required to work 3 or 4 days a week. They may be paid extra for overtime work. They are given public holidays if circumstances permit. The general practice is to allow aviators from 3 to 4 weeks' annual vacation with pay.

Regarding opportunities for advancement, we again quote the instructor in the Provincial Institute: "In my opinion the opportunities for advancement in both the engineering and flying spheres are excellent, and will be better in the near future, *for the right type of individual with the right type of training. These qualities are, however, essential. The work of both the pilot and the engineer is very exacting and it is only the few who are fitted for it.*"[1]

There is no compulsory retiring age. So long as the pilot retains all his faculties and his physical fitness he can continue to fly. As a rule a pilot can remain on the active list until he becomes 40 years of age, but very rarely until he is 50.

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[1] The italics are not in the original statement.

Other Features. A pilot enjoys a great deal of satisfaction from the fact that he has efficiently performed a flight or successfully carried out a dangerous emergency mission. A pilot is given a large measure of social recognition and is welcome in almost any society. The work naturally demands much travelling and many absences from home. On the other hand a pilot is usually operating from a base near a city and so has all the facilities for recreation which the city affords.

Some pilots suffer from "aeroneurosis," a nervous condition which may be brought on by too much flying or by a crash. A long rest will usually effect a cure, although the condition may recur at intervals. In extreme cases the effect on the nervous system may be permanent. On the other hand many pilots fly for years and never experience any harmful effects on the nerves. On the whole the pilot's life is a healthy one, and the risks he runs are much smaller than are generally supposed. The death rate, through accident, among active commercial pilots is less than 1 in 1000 annually in the United States, and is still smaller in Canada and Great Britain. In 1935 in Canada 0.569 members of the crew were killed per 1,000,000 crew miles.

The Air Engineer

The air engineer must have much the same set of qualities as is demanded of the pilot, except that small physical or nervous defects do not constitute such serious handicaps. He must be self-reliant and very methodical in his habits. Initiative, and ability to pay attention to small details are very important. A natural mechanical ability, combined with mechanical training, is necessary. Most apprentices begin to train between the ages of 16 and 20 years. First class recommendations as to character and mechanical ability, from a qualified air engineer, or some person with recognized aeronautical qualifications must be presented by an individual who desires to become an air engineer.

Training. Students are recommended to take 2 years' work in a technical high school and then 2, or better 3, years at a technical institute which provides an approved course in aeronautical engineering. This would be followed by 12 to 18 months under an air engineer at an air port or in an aircraft factory. After this training they should be able to qualify as air engineers, and have the necessary background of technical training to enable them to eventually advance to the higher positions in the occupation. After the necessary training a candidate may write his examinations, and take the practical tests. If he is successful with respect to both the aircraft and the engine, he is given the A and C class certificates respectively. These qualify him to work on aircraft and engines and to inspect them for airworthiness *before and after flight.* After a further indefinite but usually lengthy period, during which he must be employed as an air engineer, he may be allowed to write for the B and D certificates, but only if the civil authorities are satisfied that he has sufficient experience to carry the added responsibilities. If successful he is qualified to certify aircraft and engines as airworthy *after repair and overhaul.*

During his course, the air engineer studies rigging theory and practical rebuilding, repair and rigging of aircraft. He also studies engine theory and the reconditioning and repair of aircraft engines, and other practical work on aircraft such as engine and instrument installation. Studies in aerodynamics and the theory of flight, mathematics, physics, chemistry, mechanical drawing, meteorology and air navigation are not necessary in order to qualify as an air engineer, but are necessary if the engineer desires to progress beyond the lower rungs of the ladder. This training may be obtained at any recognized air port and at the Institute of Technology and Art. The training, which includes both woodwork, and work on combustion engines, would serve as a useful introduction to carpentry or to the motor industry. A number of ex-aeronautical students from the Institute are at present doing very well as automobile repairers. It would also serve as a useful foundation for almost any other branch of mechanical engineering.

Apprenticeship may be served at an air port or at an aircraft factory. The work at the air port is purely practical and consists of the maintenance and repair of aircraft and engines. There is usually no remuneration and in fact fees may be charged. There are several good aircraft factories in Eastern Canada in which an apprenticeship may be served. The remuneration is small and even in the third year would not exceed $25 or $30 a month.

Earnings. A newly qualified air engineer with A and C certificates might be paid from $75 to $150 a month. Experienced engineers might earn up to $250 or $350 a month. There is practically no limit to the earnings of a technical expert. It would probably be 3 or 4 years after beginning training before an air engineer could expect to be able to support a home. Payment is usually made on a salary basis. It should be noted that the insurance rates for pilots and air engineers are higher than for ordinary citizens.

Responsibility increases with promotion. Certifying aircraft and engines as airworthy after rebuilding or extensive repair, is a responsible business which demands wide experience. Beyond this lies work of an administrative and executive nature in connection with the operation of air lines and aircraft engines. Such positions may be obtained by those who have the proper commercial, technical and mathematical training. The work of the individual can be, and always is, observed. As a general rule, there is considerable variation in duties from day to day, except in aircraft factories.

In Canada there is a very limited supply of competent and really well-qualified air engineers. Up to the present the demand has also been limited. With the opening of the Trans-Canada air line, however, the demand will undoubtedly exceed the supply. Application for employment should be sent to the manager, or managing director of an operating air line, or to the chief engineer, the superintendent of the air port, or the manager, or works manager of an aircraft manufacturing establishment.

Hours. Air engineers are required to work about 8 hours a day, but long hours may be necessary on emergency work. No general answer can be given as to whether the individual receives pay for overtime. Usually air engineers work for 5½ days a week. They generally observe public holidays and are given from 2 to 4 weeks' annual holiday with pay.

Other Features. There is no uniform rate of advancement. Ability and extra training are features which are considered when making promotions. Up to the present, overcrowding has not offered a serious problem in this occupation. There are no air engineers' unions for upholding the rights of the employees. Air engineers may work up to age 60 or 65 years. Some large firms make provision for pensions to old employees. Employees must take care of their own personal insurance. In most cases the air engineer is located in or near a city and so has the same facilities for profitable and stimulating pursuits as any other city dweller. He derives great satisfaction from doing a difficult job in a competent manner. He never has to regard work as botched because of haste caused by the desire to maintain a high rate of production. He has a distinct social standing, although he lacks something of the glamor of the pilot. As a rule, the air engineer is not required to do much travelling or to be absent from home. The work has no ill effects on the health or nerves. (There is an interesting article on air engineers in *Maclean's Magazine* for December 1, 1937).

Military Aviation

Altogether outside of civil aviation is military aviation, which has its own ground and flying personnel.

To become an officer in the flying branch of the R.C.A.F. the applicant must have a university degree, preferably a B.Sc. and must be physically fit. Specialized aeronautical training is not essential, although it is very valuable for obtaining advancement. To gain a commission in the technical branch, which is more highly paid, a B.Sc. degree in mechanical engineering is necessary, with at least a year of post-graduate work in aeronautics.

To enter the R.C.A.F. as an aircraftsman, rigger or engine fitter, previous experience or training in aeronautical engineering is necessary. A number of ex-students of the aeronautical branch of the Provincial Institute have been able to enter the above work because of the training they received in Calgary.

Normally the qualifications for entering the British Air Force are much the same as those outlined above, except that Cadets may receive training up to approximately university graduation standard at the R.A.F. college. Since the recent expansion scheme has been in operation, however, a large number of short service commissions have been granted to any applicant of good personality, character and physique if he has had approved training in some branch of aeronautics. These commissions are for 5 years with an option of renewal for officers with a good record. Up to the present 9 ex-students from the Calgary Institute have applied for and have obtained commissions, and so far none have applied and have failed to receive an appointment. The air force career is of great value. It qualifies the individual for his transport pilot's license without cost and without further flying or examination; and if he takes the course approved by the air force he can also qualify for his air navigator's license. The individual holding both of these certificates would be in great demand in civil aviation upon the completion of his service in the air force, as there are very few such persons in Canada.

The strength of the air force in Canada on December 31, 1936, was as follows:

Permanent active air force	152 officers and 962 airmen
Non-permanent active air force	72 officers and 405 airmen

Canada Year Book, 1937.

Aeronautical Engineering

Yet another phase of aeronautics is aeronautical engineering. This embraces all the technological branches. To qualify for such work demands a technical education of at least a B.Sc. in mechanical engineering together with 3 or 4 years of practical work in operating aircraft or engines, or in a factory. From the ranks of these engineers are drawn the designers of aircraft and engine propellors, the administrative heads of factories and of aircraft lines, aeronautical research specialists, and other technical experts. Leading aeronautical engineers command very high salaries, and even the rank and file are well paid.

Auxiliary Activities

In addition to all the above this industry affords opportunities for radio operators and radio technicians; electricians, concerned with airport illumination and light beacons—a highly specialized job; meteorologists, navigators, instrument-makers concerned with the repair and calibration of aircraft instruments; and the whole range of factory workers, machinists, tool makers, fitters, welders, wood workers, riggers and the like.

Air Hostess

The qualifications for this work are very exacting. In the first place a girl who would be an air hostess must be a graduate registered nurse, and this, of course, means that she must have at least high school education. Some air lines are considering limiting stewardesses to university graduates. The applicant must be single, 25 years of age or less, 5 feet 4 inches in height or less, in perfect health, with eyesight that does not require the use of glasses. And last, but not least, she must be of "pleasant appearance," which really means that she must be "very good looking."

Compensation for those able to qualify is adequate. On some lines beginners start at $110 a month, with all expenses paid while away from the home port. After 6 months they are paid $125 a month, and after 2 years, $135. It is to be noted, however, that very few hostesses work longer than 6 months, after which time they leave the service to be married.

On the average, stewardesses work 85 hours a month. They have about 6 hours flying a day, followed by 2 days and nights off duty. The duties may be summed up as follows: "Treat the passengers as though they were guests in your home, and do everything to make them comfortable and enable them to enjoy the trip." As the air service is expanded there will be an increased demand for girls with the necessary qualifications.

Communication

Letter Carriers

Qualifications. High school education is not considered absolutely necessary for letter carriers, but it is given consideration when a new man is being appointed. The applicant must have a thorough knowledge of the city in which he seeks employment. He must have an agreeable and courteous manner. Honesty, temperance and reliability are also essential. He should be healthy, strong and without any physical deformities and should be between 18 and 35 years of age. Applicants are required to write a Dominion Civil Service examination, in which they must be successful before they can receive an appointment. Letters from several responsible persons should accompany the application. A business training would be valuable should a letter carrier desire to change to clerical work. The actual training he receives as a letter carrier would be of little value should he decide to change occupations.

Earnings. Letter carriers start work at $960 per annum and receive annual increases of $120 until they reach the maximum salary of $1500. As employees of the Dominion Government they never experience any difficulty in collecting their salaries. There were 221 postmen and letter carriers in Calgary and Edmonton in the year ending June 1, 1936. Their average salary was $1240 and their average working year was 49.2 weeks. (Census of Prairie Provinces, 1936. Bulletin No. XXVI).

Duties and Hours. The duties of letter carriers include sorting and assembling the mail for delivery, and correctly delivering the mail entrusted to their care. Duties are the same day in and day out and so tend to become somewhat monotonous. However, the monotony is relieved by the fact that they can pass the time of day with the people along the route. A letter carrier has no chance of advancement to higher positions in this branch of the service. Only by writing further examinations can he expect to enter a different branch of the service and seek advancement there. The chances of obtaining employment are relatively small during poor business conditions. The greatest chances are, of course, to be found in the larger centres. An application for a position should be sent to:

The Secretary,
Civil Service Commission,
Ottawa, Ontario.

The letter carrier works from 7 a.m. to 8 p.m. for 44 hours a week. He does not receive public holidays, but is given 18 working days' annual vacation with pay.

There are no unions to regulate the number entering the occupation, this being governed entirely by the demand. There are organizations which will uphold the rights of the letter carriers. Changes in government are not likely to have any effect on the employee.

Other Features. Letter carriers must retire when they become 65 years of age. They are given a pension when they retire from active service. The pension depends upon a contribution from the employee and upon 10 years of service. Sick leave with pay is granted at the rate of 1½ days for each completed month of service. In case of death there are certain estate benefits included in the pension plan.

The letter carrier is engaged in a necessary type of work. He is not required to do any travelling or to be absent from home for even short periods of time. Being an employee of the Dominion Government, his political activities are somewhat restricted. The work has no ill effects on health or nerves, but it does tend to be hard on the feet and legs.

Radio Broadcasting

"Broadcasting of the human voice by radio first commenced in Canada with test programs carried out by the Canadian Marconi Company during the winter evenings of 1919. Regular organized programs were commenced in December, 1921, by the same company, on a wave length of 1,200 metres."[1] Fifty-two private, commercial, and amateur broadcasting licenses were granted in the fiscal year 1922-23. This number had been increased to 76 in the fiscal year 1934-35, while the number of receiving sets was 812,335. About 100 men and 32 fully equipped cars are engaged in the suppression of interference. In Alberta in 1936 there were 55,318 private receiving sets. Sixteen wage-earners were listed as radio station operators in the 1931 census. (See tables XLIX and LIV). This number has been greatly increased since then. The 1936 census of Alberta showed 13 wage-earners classified as radio station operators in Edmonton.

Qualifications. The successful radio announcer must be patient, courteous, genial and dependable, with a wide knowledge, good imagination and ready wit. He should have good health, although only average physical strength is necessary. A good voice and hearing are very necessary. A course in voice training, dramatics, and music appreciation would be very valuable for any one desiring to enter this occupation. The best time for entrance is between 20 and 30 years of age.

Considerable valuable training may be obtained through various courses, and by amateur transmitting and receiving, for which a license is necessary. A pro-

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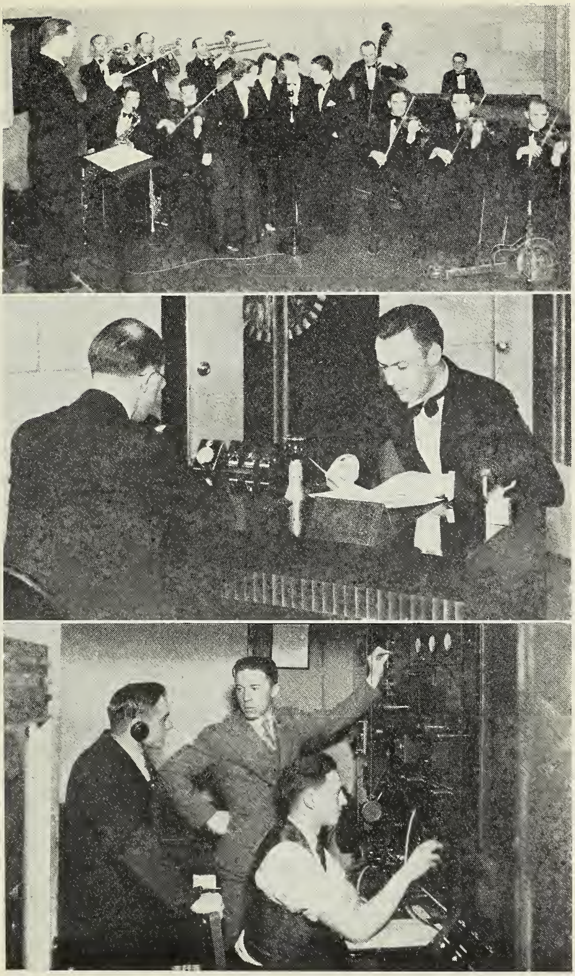
[1] Canada Year Book, 1937.



Upper: Action in the studio. *Lower*: Radio technicians.
Centre: Announcing.

vincial license is necessary and a federal examination is set for commercial work. These examinations are conducted by the Radio Branch. Up to March 31, 1935, a total of 5,631 licenses had been issued. Radio engineering training may be obtained in Vancouver and Toronto. This latter training is of great value if the engineer desires to transfer to some other branch of electrical work, such as air service, theatres, or the telegraph and telephone service.

Earnings. The salaries received by technicians vary from $75 to $250 a month. Executive workers are paid from $75 to $350. In most cases remuneration takes the form of a monthly salary, except in the case of "free lance" announcers, such as sport announcers.

The Work. The technician has general supervision over the operation and maintenance of the apparatus. Studio workers are engaged in announcing and in preparing continuities, programs and advertising. The work is not monotonous, for each day has its own distinctive features. Employment may be obtained in broadcasting stations, government service—in marine and aircraft communication—private manufacturing concerns, the movie industry, firms that do a great deal of advertising and at aviation fields. There is not an over-supply of radio engineers and technicians at the present time. Further, the industry is in a state of growth so that there are openings in the industry for properly trained men. Cities offer the greatest number of openings and opportunities. In Canada the chances of advancement *in the studio* are not too bright at the moment. Application for work should be sent to station managers, or industrial and commercial firms which make extensive use of the radio for advertising.

Other Features. The working day varies greatly in length, with a tendency for the hours of some announcers to be irregular. Such is not the case for the technicians. Frequently it is necessary for the announcer to work every day in the week. Most employees are given 2 weeks' annual vacation with pay. Personality and qualifications are the important factors in advancement and security of tenure, since there are no organizations to look after the individual employee. Members of this branch of communication rely on the usual means of insurance, except that in some studios there may be opportunities for obtaining group insurance.

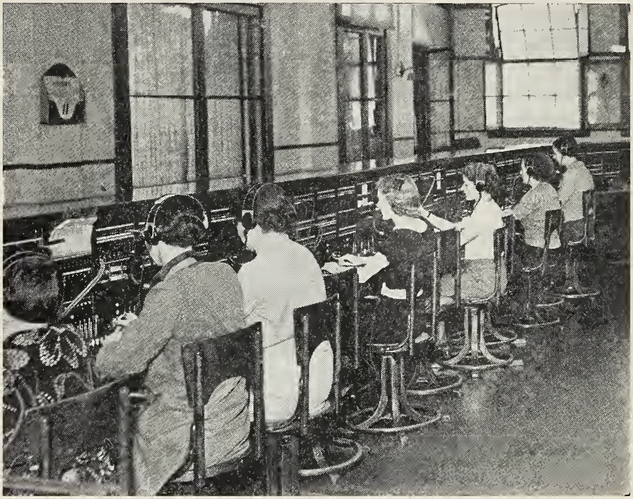
Radio station operators find considerable pleasure in doing their work, for they feel that they are contributing to the general education and entertainment of the public. Considerable social recognition is given to a radio broadcaster; his voice and personality become widely known. Some announcers may be required to do extensive travelling in the course of their work. This is especially true of sport announcers. Most of the workers in this field have ample opportunities for exercising their originality, and in fact this is a very necessary trait. As a general rule there are no ill effects on the health and nerves, although there may be considerable nervous strain at times.

Telephone Communication

The business of telephone communication may be divided into 4 distinct divisions, namely, plant, commercial, traffic and accounting. Each of these has more or less definitely specialized educational requirements.

Qualifications. As a rule, applicants are given a general quiz on personal likes, dislikes, outlook and aptitudes. The scholastic record of each applicant is also considered. Male applicants should be between 16 and 18 years of age, and girls, between 18 and 21. Two or three references as to character, habits and ability must accompany the applications. As a rule it takes about 2 years to train a skilled operator, or a first class stenographer or office worker. Three or four years are usually required for training in the mechanical branches of the service.

Earnings and Hours. Earnings vary with the nature of the work. During the probationary period of 3 months the minimum wage is $2 a day. The minimum wage for a member of the permanent staff is approximately $55 or $60 a month. Increases based on ability are granted at stated intervals. After 2 years the average clerical worker should be receiving from $70 to $75 a month and the average mechanic from $80 to $100. Most of the work is of a routine nature, although there are certain changes from day to day.



TELEPHONE OPERATORS AT THE "BOARD."

The field is somewhat restricted in Alberta but with returning prosperity there will undoubtedly be openings for young persons of good ability. Economic conditions and departmental policies determine the number entering the field. The average earnings of 156 female telephone operators in Calgary and Edmonton in the year ending June 1, 1936, were $768 and their average working year was 45.6 weeks. Eighteen male operators averaged 49.2 weeks of work and $1,038 in salaries. (Census of Prairie Provinces, 1936. Bulletin No. XXVI.)

Office workers and operators work 39 hours a week and mechanics, 44. Operators and mechanics are paid for overtime. All employees receive from 2 to 3 weeks' annual vacation with pay.

Other Features. Retirement from the service is compulsory for workers when they become 65 years of age. Male employees must participate in a pension plan. Female employees may subscribe to the pension if they wish. Death benefits form part of the pension scheme. The value of the pension depends on the earning power of the individual. The maximum sick leave is 3 months with full pay and 9 months with half pay.

The worker in this field obtains considerable satisfaction from the fact that he or she is an essential part of one of the most important branches of a very necessary communication system.

The following sections give a few specific facts about each of the main divisions of telephone service.

Plant. This includes the construction and maintenance of the physical plant required to provide telephone communication. Employees in this branch are all male, and vary in skill from common laborers to highly trained engineers concerned with the involved and complicated apparatus, equipment and mathematics of modern telephony and radio service. The highly technical work of some of the engineers requires that they be university graduates. Less skilled mechanics should have a year or two in a technical school in order to get the rudiments of electricity and magnetism.

Accounting. This branch includes all those persons who are needed in any great business for accounting, measuring and statistical work. Telephone accounting and rate making are highly specialized types of work.

Any student who has the desire to enter this work should complete at least grade XI and then spend a year in a commercial school for training in office practice, bookkeeping and business English. Applicants for stenographic work are tested in shorthand, typing and knowledge of the English language. Applications from persons who are color blind or who have physical deformities or general poor health receive minor consideration.

Traffic. The personnel of this branch, which includes all persons concerned with the handling of calls, is female except for a few highly skilled supervisors. There is a great range of responsibility to be found among the members of this group, from the small town operator with little responsibility and concerned with local traffic, to the highly skilled young women who handle national, international, overseas traffic and calls to ships at sea.

Operators are not required to have any specialized training but any experience that produces manual dexterity and a quick reaction to spoken words would be very useful. An accurate knowledge of local, Canadian and United States geography is very valuable for an operator.

Operators should be at least 5 feet 3 inches in height and right-handed. They should have a pleasant voice. Singing and elocution training, then, would be very useful. They must have good vision and hearing and be free from speech defects.

Commercial. The members of this branch are in direct contact with the telephone-using public. Hence they should have the personality and appearance which are characteristic of workers who deal directly with persons.

There were 2,833 telephone systems in Canada in 1935. It is estimated that there were 2,273,112,000 local and 25,395,566 long-distance telephone calls in Canada during 1934. In Alberta there were 8 telephones per 100 of population in 1935. Telephone service that year in Alberta required the services of 1,140 full-time employees. The salaries and wages of these employees amounted to $1,008,753. (Canada Year Book, 1937.)

Telegraph Communication

The first Canadian telegraph line was opened October 22, 1846. By the end of 1847 the Montreal Telegraph Company had 540 miles of wire in use. There were 9 offices and 35 employees, and 33,000 messages had been sent. There are now 7 main telegraph companies in Canada.

The following table shows the recent trends in telegraph communication.

TABLE LV

SUMMARY OF SATISTICS OF ALL CANADIAN TELEGRAPHS, CALENDAR YEARS 1928-1935

Year	Employees	Offices	Messages (Land)
1928	7,639	4,909	16,857,220
1929	8,056	4,766	18,029,973
1930	7,331	4,661	15,558,224
1931	6,637	4,474	13,200,198
1932	5,788	4,248	10,519,433
1933	5,263	4,115	10,095,061
1934	5,624	4,171	10,526,496
1935	5,903	4,103	11,138,835

Source: Canada Year Book, 1937, Page 711.

Branches of the Work. Telegraph work is divided into two main departments, namely, commercial and traffic. In commercial work the employee is in contact with the public and so requires that type of personality which would enable him to deal with persons. Traffic telegraphy requires technicians and skilled operators. Telegraph service is changing so rapidly that at present only about 35% of the communication in the United States is done by Morse Code. Automatic telegraphy and radio require the services of technicians who understand and can use the Morse Code. The slow-thinking individual should not consider entering this occupation, for he will have great difficulty transcribing from sound to paper. The imaginative and somewhat nervous type of individual has greater chances of success. Poor vision and hearing and any hand deformity would be practically insurmountable handicaps for telegraphers.

Entrance to this branch of the service should be sought before the would-be telegrapher is 20 years of age, as it is necessary for him to start as a junior, that is, as a messenger or a filer. The junior is afforded an opportunity of learning the code. If he can master it, and if he has sufficient academic background, he will be in line for promotion.

Earnings. Messenger boys and junior clerks are usually paid from $45 to $50 a month. Telegraphers receive about $170 a month; supervisors and other officials receive considerably more. Salaries are governed by agreement between the company and the telegraphers' union. The average earnings of 149 male operators in Edmonton and Calgary in the year ending June 1, 1936, were $1,360. Their average number of weeks of work was 41.6. (Census of Prairie Provinces, 1936. Bulletin No. XXVI.)

The Work. Telegraphers send and receive both Morse and automatic codes. Linemen are engaged in construction and repair work. Clerks are responsible for the accounting, acceptance and general booking of telegrams. Wire chiefs and "repeater attendants" handle the physical plant and the technical part of telegraph operation. Engineers design, lay out and install plants. Supervisors oversee all branches of the service. Executive heads formulate the policies and manage the company.

Since 1929 the number of employees engaged in telegraphic communication has greatly decreased. This is partly due to economic conditions, but new and improved methods and machinery have also played an important part in this reduction. Telegrams are now largely handled by machinery and the "carrier system" makes it possible to handle 200 messages simultaneously on a single pair of wires. Telegraph service is closely related to the community, so that a return to more prosperous business conditions would result in an increased demand for telegraph operators. However, such factors as a shorter working day, an earlier retiring age, and the possibility of a greater use of radio make it difficult to predict the future.

Other Features. These operators usually have regular hours of work, for 8 hours a day. Overtime, at an increased rate of pay, is occasionally required. An annual holiday of 2 weeks with pay is given to most employees.

Employees must retire when they become 65 years of age. Since 1934 both employer and employee have contributed to a pension fund. The amount of pension an employee receives when he retires depends upon the value of these contributions.

CHAPTER IX

Business Occupations

It must first be noted that there is such a variety of business occupations that it will be possible to deal only very generally with the subject of business vocations. The following tables will serve to indicate some of the main business establishments and their relative importance from the standpoints of number of establishments, number of employees and amounts of salaries and wages.

In business occupations only a small percentage of the workers are engaged in a type of work which requires high ability and years of training. For the great majority of students the best opportunities for success and happiness are to be found in jobs which require less ability and less difficult training. For these jobs, then, students do not need professional training at universities.

"Among service establishments, the amusements group was the most important. The next group in importance was that of storage and transportation, which includes cartage and storage, taxi and motor transportation. The barber shops were the most important section of the personal service group and did more than twice as much business as hairdressing and beauty parlors. The repair and service group had the largest number of establishments. Blacksmith shops were the most numerous, their receipts being only slightly less than the total for boot and shoe repair shops. Repair and service shops for motor vehicles formed an important section of this group." (Canada Year Book, 1934-35, Page 687.)

The following tables give some idea of the employment offered by business occupations.

TABLE LVI

Retail Service in Alberta and Canada, 1930

	Establishments	Employees		Salaries and Wages $
		Full time No.	Part time No.	
Alberta	2,881	2,799	476	3,212,000
Canada	42,223	55,257	8,984	61,231,900

Source: Canada Year Book, 1934-35.

TABLE LVII

Retail Services in Alberta and Canada, 1930

	Alta.	Canada			
	Establishments	Establishments	Employees		Salaries $
			Full time	Part time	
Amusement and Recreation	330	3,300	8,832	3,244	10,305,600
Business Services	27	476	2,339	264	4,118,100
Domestic Services	323	4,884	14,974	672	13,568,000
Educational Services	14	169	455	75	585,000
Personal Services	594	10,583	6,633	1,045	6,436,100
Photography	60	857	1,021	226	1,134,400
Undertaking and Burial	54	860	933	262	1,259,600
Repair and Service Shops	952	14,167	4,645	940	5,008,800
Storage and Transportation	380	5,346	13,348	1,952	16,297,700
Miscellaneous Services	147	1,581	2,086	304	7,780,000
Totals	2,881	42,223	55,257	8,984	61,231,900

Source: Canada Year Book, 1934-35. Pages 688-90 and 674.

TABLE LVIII

RETAIL MERCHANDISE TRADE IN CANADA AND ALBERTA BY GROUP AND KIND OF BUSINESS, 1930

Group and Kind of Business Stores	Alta.	Canada			
			Employees		Salaries and Wages
	No.	No.	Full time No.	Part time No.	$
Food	2,153	44,665	45,615	8,578	41,384,100
Country General Stores	1,200	11,915	11,373	2,107	9,832,200
General Merchandise	93	2,974	51,880	7,730	56,455,700
Automotive	1,115	13,194	28,073	2,689	35,766,700
Apparel	489	10,474	20,153	4,026	22,592,200
Building Materials	762	6,035	12,987	1,680	16,249,200
Furniture and Household	156	3,188	10,943	957	14,526,000
Restaurants, Cafeterias and other Eating Places	483	5,609	18,838	1,392	14,125,300
Other Retail Stores	2,018	25,343	37,675	7,376	45,779,600
Second-hand Stores	123	1,606	1,146	241	1,144,600
Grand Totals	8,592	125,003	238,683	36,776	257,855,600

Source: Canada Year Book, 1934-35, pp. 678-681.

These tables indicate the importance of business and business occupations in our modern society. Retail services, too, offer many occupational opportunities.

The following table indicates the numbers of workers in 3 main branches of business, namely, bulk merchandizing, retail merchandizing and retail services. Notice the comparatively large number of proprietors as compared with the total number of employees.

TABLE LIX

Numbers Engaged in Business in Alberta, 1930

	Employees Full time No.	Part time	Proprietors not on pay roll. No.	Proprietors receiving salary. No.
Bulk Merchandizing	5,756	+	+	+
Retail Merchandizing	13,077	1,944	7,089	1,390
Retail Service	2,799	476	2,880	160
Total	21,632	2,420	9,969	1,550
Grand Total		24,052		11,519
				35,571

+ Data not available.
Source: Canada Year Book, 1934-35.

The following table indicates the importance of business occupations in Alberta, with respect to number of workers, by showing the percentages of certain Alberta populations that are engaged in business activities.

TABLE LX

Percentage of Total Alberta Populations Engaged in Business

	Number	% of population engaged in business
Total number gainfully employed in Alberta, 1930	286,218	12%
Total number gainfully employed in Alberta, 1930, exclusive of agriculture	140,471	25%
Total number of wage-earners in Alberta, 1930	142,421	17%
Total number of wage-earners in Alberta, 1930, exclusive of agriculture	116,187	21%

The table indicates that about one quarter of all gainfully employed persons in Alberta, exclusive of agricultural workers, were engaged in business occupations.

—*Courtesy, The T. Eaton Co., Western, Limited.*

RETAILING AFFORDS OPPORTUNITIES FOR BOTH WOMEN AND MEN EVERYWHERE.

About 17% of all wage-earners were engaged in business activities.

The following table will give an idea of the many types of employment to be found in different branches of retail service by indicating the different occupations found in Candy and Confectionery.

TABLE LXI

GAINFULLY OCCUPIED IN RETAIL DEALING IN CANDY AND CONFECTIONERY IN CANADA AND ALBERTA, 1931

	Canada		Alberta	
	Male	Female	Male	Female
Owners, managers, and dealers	3,670	796	264	44
Bakers	1,124	81	65	4
Bakers' apprentices	144		10	
Confectionery and biscuit makers	93	33	2	
Deliverymen and drivers	108		1	
Teamsters and draymen	68		2	
Truck drivers	94		5	
Messengers	57		2	
Packers, wrappers, and labellers	6	30		
Shippers	12		2	
Salesmen and saleswomen	1,396	2,950	73	172
Cooks	29	11		1
Bookkeepers and cashiers	15	69	2	4
Stenographers and typists		25		
Other clerical (office clerks)	19	31	1	1
Laborers and unskilled workers	125	18		1

Source: Volume VII, 7th Census of Canada, 1931.

From the foregoing tables it can easily be seen that wholesale and retail merchandizing and retail service offer many different occupations to students. The small retail store has about the same functions as the larger establishments, the difference being in the amount of specialization in the different establishments. In the small store a few employees are required to do all the work, i.e., they are specialists in general merchandizing. The important thing in merchandizing is to have the right goods, in the right quantities, at the right prices and at the right time. From this statement one can readily understand that this is a highly complex group of occupations.

Business occupations may be roughly classified as follows: (a) executive and managerial; (b) personnel work; (c) purchasing; (d) finance; (e) clerical and secretarial; (f) sales and advertising; and (g) professional—including legal, accounting, industrial engineering and statistical.

Each of these subjects mentioned above will be dealt with in this chapter.

Executive and Managerial. Business executives are required to plan the policy of the firm, and managers are expected to carry out the plans. In order to serve both the firm and the public, the efficient executive should have a good knowledge of economics, methods of advertising, sales, finance and production efficiency. He must have an excellent memory for details. He must be a good organizer, and, by reason of long experience, be able to accept great responsibility in conducting the affairs of the firm, so that all parts of it act as a co-ordinated whole. The manager or department head, supervises the work of his department and thus carries out the plans of the executive officers. A few of the manager's duties include: (1) training new employees; (2) setting standards of work; (3) employing scientific management in office work; (4) providing for efficient dealing with callers and solicitors; (5) installing the most satisfactory filing methods. Members of this branch of business usually obtain their positions by promotion from the staff of the firm. Technical training and ability to deal with persons are the important features leading to promotion to the position of manager.

Personnel Work. Personnel work is concerned with the hiring of promising applicants by a consideration of their experience, training and ability. It also sees that healthful and safe working conditions are maintained, and sponsors educational programs and recreational projects among the employees. It attempts to have each individual doing the work that he or she is best fitted to do. Employees may be moved from one department to another if it is thought that such a move would benefit both the individual and the business firm. Personnel workers must be highly trained people with a broad educational background. They should have a good knowledge of psychology, philosophy, statistics, wage rates, business organization, employment systems, working conditions, health and methods of co-operation.

Purchasing Agents. This department is concerned with the buying of raw materials or goods for re-selling. Agents must understand market conditions so as to be able to buy the proper materials at the best time, at the best price and in necessary and adequate amounts. They may be required to handle all requisitions for supplies and equipment for the various departments of the business.

Finance. The financial function of a business includes the administration of cash, credit, collections, insurance premiums and taxes. The cash department handles and accounts for all receipts and disbursements. The credit department must know the financial ratings of all the customers, and decide where credit shall be granted, and how much. It must check all contracts made by the firm and look after collections.

Clerical and Secretarial. This branch of business is constantly requiring more workers, due largely to the fact that modern business depends on record keeping and clerical operations. (See the section dealing with Stenographers, page 405.)

Sales. The sales force includes commercial travellers, and salesmen and saleswomen. The principal duties of the latter include waiting on customers, keeping daily records of sales, and treating the customer politely regardless of personal feelings. Other important officers are sales executives and managers, whose chief duties include among many others: (1) formulation of policies for selling products; (2) formulation of policies as to price; (3) formulation of policies as to sales methods; (4) management of sales force, including selection, training, compensation, and supervision; and (5) solving problems in connection with the filling out of orders and the delivering of goods.

Advertising. "Advertising is a combination of business and the arts, involving analysis, planning, writing, illustrating, management and human contacts." In large business firms the advertising branch produces and presents familiar advertisements, but also deals with: (1) study of the reading habits of the public; (2) tests of effects of advertising; and (3) comparison of the effectiveness of various kinds of advertising. In order to carry out this program effectively, the advertising department must be sub-divided into smaller departments, each having its own particular function.

Professional Service. Business now requires the services of many highly-trained professional men. A few of these professions are indicated below. Many business firms require so much legal advice that they find it very convenient to have their own salaried lawyers devoting all their time to the affairs of the business.

The chief accountant is responsible for the organization of the internal records of the firm and for the preparing of financial statements for the management. Winter and early spring months are exceptionally busy times for accountants. Bookkeeping might be classified as an elementary form of accounting. In large firms bookkeepers are required to keep records of comparatively small branches of the business. In smaller firms they have more varied duties, including: (1) making up the bank deposit and banking money; (2) putting all entries in a permanent record; (3) writing cheques; (4) sending out statements; (5) closing books at the end of the month and making a trial balance; (6) filing letters and orders; and (7) keeping stock records. Bookkeepers usually get their training in commercial high schools or business colleges. The work is more routine and much less complex than that of the accountant.

The statistician has become an essential part of larger business firms. His is an occupation open only to one who is well grounded and interested in the practical application of mathematics. With the expansion of governmental activities there has also been an increased demand for statisticians in government work as well as in trade associations.

Research work may include a study of such things as costs of employment, labor turnover, analysis of sales records, investigations of causes of credit losses, studies of consumer attitudes and of unit cost of handling orders.

The foregoing will give some idea of the many branches of business open to the enterprising young man or woman who has the necessary qualifications and the desire to succeed.

Merchandizing

The Work. Merchandizing, as related to the departmental store, requires the services of all types of business specialists; advertiser, accountant, buyer, stenographer, clerk, and saleswoman. The smaller the store the greater will be the number of duties required of each employee and of the proprietor.

Let us see what organization would be necessary in a small store of, say, four people. The merchant or proprietor would be required to supervise buying, selling, advertising, window displays, credits, and deliveries. He would be required to control expenses, plan business ahead and cultivate trade. He would act as bookkeeper, sending out bills, handling the pay roll, collecting accounts, checking the invoices and marking up the goods. There would probably be a division of labor among the three clerks, one might be in charge of the grocery department, and another of the dry goods branch. Each would be responsible for reporting those lines in which they were running short, aiding in buying, suggesting advertising and reporting slow moving stock. They would be responsible for making up the window displays, changing price tags, keeping the store clean, putting up orders and keeping up the stock. If there were no delivery man, one of the clerks would be required to deliver the goods, report on all complaints and collect accounts. And, of course, over and above all these duties, they would all be required to sell goods. From this one can realize that in a large store a great amount of specialization would be possible.

Qualifications. A survey of these duties also shows how difficult it is to generalize with respect to the character and qualities necessary for individuals who are planning to find their vocation in trade and merchandizing. A student who is desirous of becoming an owner, should ask himself if he has the qualities found in proprietors of successful merchandizing firms. The same qualities are required of men who become managers. They should have aggressive but pleasing personalities, mathematical minds and good common sense; each type of merchandizing requires its own particular personality type. Neatness, honesty, accuracy, initiative, tact, attention to detail are necessary qualities for owners, and men and women engaged in the more responsible positions. Most persons engaged in this occupation must be capable of meeting the public. Good health, cleanliness and pleasing manners are very essential. Originality, initiative and ability to co-operate are further necessary desirable traits if one is to be successful. It is the case that there is a need for modern merchandizing methods in many of our smaller towns and villages. This alone, however, does not guarantee success. Beginner's incompetence, poor management, lack of capital, unwise extension of credit or too many competitors may cause failure. A recent study in the United States has shown that of the retailers in business at the beginning of a five year period, only 56.6% are left at the end of the fifth year. (Williamson—*Students and Occupations.*)

Academic high school education is being demanded more and more of applicants for employment in merchandizing. Those seeking more advanced and responsible positions as executives, personnel officers, statisticians, and so on must have university training. Sales people usually start work at from $12 to $14 a week, and acquaint themselves with the commodities which they are required to handle, the store routine, stock room, marking room and so on. This training is of great value in many lines of business, in writing copy, and in radio advertising. It is very difficult to give any accurate information as to salaries that can be expected in merchandizing. From tables LVII and LVIII one can get a general idea of the *average* salaries and the wages paid to all employees in retail and wholesale merchandizing and in retail service.

The following table shows employment conditions in Calgary and Edmonton.

TABLE LXII

AVERAGE EARNINGS AND AVERAGE WORKING YEAR IN WEEKS FOR A FEW MALE EMPLOYEES IN COMMERCE IN CALGARY AND EDMONTON, IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average Earnings $	Average Working Year Weeks
Managers—Retail store	490	1,890	49.1
Advertising agents	83	1,400	45.8
Commercial travellers	371	1,515	48.0
Credit men	93	2,050	50.0
Window dressers	28	916	40.0
Salesmen	1,763	622	37.3

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

The average earnings for 1348 saleswomen were $455 for an average working year of 36.7 weeks.

Other Features. Some firms offer group insurance to their employees. The hours are fairly regular in city stores, but in rural centres the hours are frequently very irregular. Public holidays are observed by all employees, but only salaried officials are given annual holidays with pay. Opportunities of obtaining employment and advancement are greatest in the larger centres.

Employees are free to use their leisure time in any way they desire; there are ample opportunities for self-development in all branches of the business. The work should not have any ill effects on nerves and health provided that the individual is emotionally stable and has average good health.

Naturally it will be impossible to deal with even a small fraction of the many different jobs to be found in trade. In the next few pages we shall discuss Wholesale Salesmen and the Personal Shopper.

JVENILES
BOOKS OF GENUINE INT

—*By courtesy of the Hudson's Bay Company, Edmonton.*

ONE OF THE MANY AVENUES OF EMPLOYMENT IN A DEPARTMENTAL STORE

Wholesale Salesmen

Qualifications and Earnings. There is no definite stated education necessary for a young man who desires to become a wholesale salesman, but promotion may be affected by his education. University graduates have a greater chance of advancing to the better positions.

Healthy, well-proportioned men who have a pleasing voice, a convincing manner and business integrity are required for this work. Entry is most easily effected when the individual is between 21 and 27 years of age. This training would be invaluable for the man who later intends to open his own business. A little extra training would equip him for keeping books. Beginners usually start in the warehouse at about $40 to $50 a month; later as warehousemen they would receive from $75 to $100 a month. A wholesale salesman begins at about $100 a month and expenses, and ranges up to $250 and expenses. The average at present is $150 and expenses. Individual ability and initiative are the factors which determine ultimate success. Some salesmen are paid a salary, some a commission and others by a combination of these two plans. Expenses may or may not be paid by the firm.

The Work. The work consists of travelling from town to town and endeavoring to sell the goods by creating a desire in the retail merchant for them. The salesman may advance to such positions as sales manager, credit manager or general manager, and in so doing would assume greater responsibility and at the same time would have fewer dealings with the general public. Many firms have a conference each Saturday morning between the salesman and the sales manager regarding poor accounts, collections and changes in lines.

Salesmen may handle specialty lines such as air-conditioning equipment, refrigerators, cash registers, scales, model houses ready to set up, accounting and office machines, or the more staple lines such as dry goods, boots and shoes, groceries and hardware. Application for work should be made to the sales manager or the manager of the firm for which one desires to work.

Other Features. City salesmen have regular hours, but country travellers have very irregular hours. Public holidays are observed by travellers, but only salaried officials are given annual vacations with pay.

There is no retiring age in force, nor is there a pension plan for wholesale salesmen. Only about 3 out of every 25 salesmen can expect to be promoted to executive positions, and consequently it is recommended that salesmen should have enough money to retire at about age 50 or else to go into business for themselves. They receive their satisfaction from the fact that they see their goods going into the hands of the public, and from realizing that their efforts are responsible for this. Travellers must have originality and initiative if they are to be successful in this occupation. There are no restrictions on their political or religious activities. The work is not particularly hard on the health and nerves, provided that the individual takes care of himself. His associates are usually of the congenial type, as one might expect, since they are all men who are engaged in meeting the public.

Personal Shopping

Qualifications. Personal shopping is essentially a woman's occupation. The successful "shopper" must be tactful, diplomatic, careful, precise and interested in people and their problems. A neat appearance and good health are valuable assets in this occupation. Young women between 18 and 25 years of age who have completed 4 years of high school education are good material for this work. A business course including typewriting, shorthand and business English would increase one's prospects of obtaining a position as a personal shopper. Some selling experience and knowledge of merchandize is also essential. A "shopper" must be able to express herself well, both orally and in writing. Initiative and originality are very necessary characteristics. If a student has all of these qualities she might consider this as a possible vocation. Actual training for the work is obtained in the store. Experience gained as a personal shopper may be utilized in writing copy for an advertising office, in radio announcing and in various branches of merchandizing.

The Work. The duties of the personal shopper will vary with the size of the firm. In a large firm there might be several "shoppers" and a specialization of duties. In a small firm one personal shopper would be required to do all the related work. "Routine" work includes: (1) reading the mail; (2) listing orders; (3) selecting the merchandize; (4) answering correspondence such as inquiries, complaints, requests for adjustments and explanation of orders; (5) checking the orders to maintain an efficient service; and (6) filing and maintaining records. In addition she may be required to organize or otherwise take an active part in fashion shows and displays, and afford personal guidance to any buyer requiring such service. The better positions are less routine and more specialized in nature. One may enter executive work entirely, deal entirely with fashion shows, act as a personal guide, or develop social contacts.

Beginners usually start at from $12 to $14 a week. It is difficult to say much about later salary because of the range in duties and sizes of firms requiring personal shoppers.

√ *Other Features.* There is little demand in the West for such employees. However, it is a new occupation which will undoubtedly increase in importance. The hours are regular, from 9 a.m. to 6 p.m. for 5½ days a week. Public holidays are observed and annual vacations of from two to three weeks with pay are usually given to these employees. Advancement is not regular and depends largely upon ability. This is, however, a very limited field, so that opportunities for advancement are scarce.

There is no retiring age and no pension scheme in general operation, although some of the larger firms have pension plans for their employees. Employees in some of the larger business concerns have a benefit society to which they contribute. Wages may continue for varying lengths of time during an absence from work caused by illness or accident, but this again depends upon individual firms.

Personal shoppers derive a great deal of satisfaction from serving the public in this way, and from making new contacts and retaining old customers by maintaining a high standard of efficiency. It is an important work in that it opens up to out-of-town customers the facilities of the large departmental store, and gives personal attention to their needs without their presence being required. On the whole there is not a great deal of nervous strain connected with this work. There are no restrictions placed on the social, political or religious activities of the personal shopper.

Grain Company Employment

Qualifications. A student should not think of entering this occupation unless he is very healthy and has a good constitution. The nature of the work of the grain buyer requires that he be in a cloud of grain dust, especially during the busy season. He is also very apt to contract colds unless he has a constitution that readily throws them off. He should have good eyesight, and no physical deformities. He must be capable of meeting the public but more especially the farming element of our population, for to be successful he must attract business to his elevator and then keep it there by friendly relationships with his customers, as well as by tactful, honest dealings with them. Men of nervous, erratic, emotional character are not apt to be successful in this occupation.

Training. High school training is not essential, but the more one has the more chances one will have of obtaining advancement when opportunities arise. A course at an agricultural school would be very useful, as also would a business course and practical experience with machinery. Some elevator companies are anxious to obtain university graduates whom they may train to become traveling superintendents of grain elevator companies.

The Work and the Pay. Training in an elevator as a helper for a period varying from two months to one year is necessary before a man can be appointed to his own elevator. During this time he learns to grade grain, operate the scales and engine, prepare cars for shipment, bin the wheat, keep books and prepare daily reports. At the present time there are more trained grain buyers than are needed. It has been estimated that 1 applicant in 12 obtains work. Helpers receive from $40 to $70 a month. Buyers are paid from $50 to $135 a month. Superintendents receive from $225 to $250 a month. There is no definite rate of salary increase. Salaries received depend to a great extent on crop conditions. There were in the Western Division in Canada in 1936, 5,840 elevators, a decrease of 10 as compared with 1935. The totals for Canada were 5,870 in 1936 as compared with 5,880 in 1935. There were 1,787 elevators in Alberta in 1936.[1]

Many buyers supplement their incomes by handling such side lines as coal, twine, and other farmers' supplies.

The duties of the buyer are much the same from day to day, but there are great seasonal changes in the amount of work required during the working day. The duties may be summarized as follows: (1) buying grain in competition with other buyers on proper grading and dockage, and issuing cheques; (2) binning the grain in order that the company may receive the greatest possible benefit; (3) elevating the grain; (4) loading the cars; (5) repairing the engine and plant when necessary; (6) sending in daily reports, including the crop report during the growing season.

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[1] Source: Canada Year Book, 1937.

From this summary it may be seen that a buyer must have ability as a solicitor of business, as an office clerk, and as a mechanic. Promotion from buyer to travelling supervisor, to district superintendent, to assistant manager, to manager implies a great change in the duties, namely, from buying and grading grain to supervision and administration. A specialist in grading grains has an excellent opportunity to become a government grader. Naturally the best opportunities are found in the great grain producing areas.

Other Features. The hours of labor vary greatly with the season, but the buyer is supposed to be on duty eight hours a day, for six days in a week. During the greater part of the year there is very little business, but during the fall months he must be ready to accept grain at almost any hour of the day or night. He is entitled to public holidays, except during the threshing season, and also receives two weeks' annual vacation with pay.

Advancement depends primarily upon merit, but the chances of obtaining promotion are very small by reason of the fact that only a small number of higher officials are required as compared with the number of country agents. Those who have the higher education are in a better position to be able to take advantage of any openings that may occur. About 1 man in 30 can expect to become a superintendent, and 1 in 400 a company manager.

There is no retiring age or pension scheme in effect for grain buyers. Group insurance is available for elevator employees. As a general rule wages continue during absence from work due to accident or illness, for variable lengths of time, depending on the company.

The work does not entail much travelling for most agents. During most of the year they have time to engage in any stimulating pursuit or hobby in which they may be interested. Buyers enjoy as much freedom in political and religious beliefs as any other men engaged in business. A particularly disadvantageous feature of this occupation is the great amount of dust around the elevator, which tends to have ill effects on the general health and particularly on the lungs of these workmen.

CHAPTER X

FINANCE, INSURANCE

There were 2,172 men and 28 women classified as gainfully employed in finance and insurance in Alberta in 1931. Of these 1,466 men and 18 women were wage-earners. This is one of the smaller occupations with respect to numbers of gainfully employed persons, but is one that offers rather higher than average remuneration to those who are qualified to engage in it.

Table LXIII indicates the occupations to be found in finance and insurance. It also indicates the amount of employment and unemployment that exists in these occupations.

TABLE LXIII

EMPLOYMENT AND UNEMPLOYMENT IN A FEW BRANCHES OF FINANCE AND INSURANCE IN ALBERTA IN THE YEAR 1931

		Wage-earners			
	Gainfully employed No.	No.	Losing time No.	Losing time %	Time lost %
Male					
Finance officials	386	386	1		
Insurance officials	170	170	0		
Insurance agents	890	679	74	11	5
Real estate agents	484	130	25	19	13
Stock and bond brokers	218	101	25	24	15

NOTE: There were 18 women listed as insurance agents.

Source: Adapted from Vols. VI and VII, 7th Census of Canada, 1931.

Table LXIV gives the average earnings of men engaged in these occupations in Calgary and Edmonton in the year ending June 1, 1936. It is interesting to compare the earnings of these men with the incomes of men engaged in other occupations.

TABLE LXIV

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN FINANCE AND INSURANCE IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936.

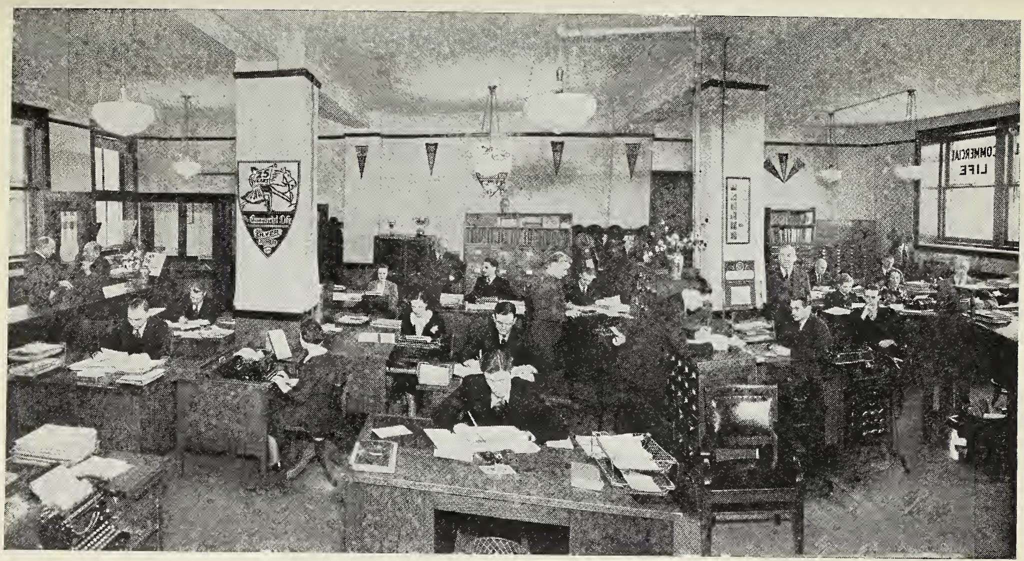
	Employees No.	Average earnings $	Average yearly work Weeks
Finance officials	135	3,200	51
Insurance officials	135	2,740	51
Insurance agents	349	1,276	45
Real estate agents	64	1,390	46
Stock and bond brokers	65	1,551	43

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Insurance

Training and Qualifications. In the past, advanced education was not considered necessary for the person who wished to become an insurance salesman, nor is it essential now. However, the more academic education one has, the more likely one is to make a success of selling insurance. Many insurance companies are, indeed, beginning to appoint university graduates to the higher office positions. A university course in commerce would probably be the most suitable for the prospective insurance executive.

Tact, honesty and a pleasing and fairly aggressive personality are essential characteristics for success as an insurance salesman. Too much aggressiveness is not desired by executives, who frown on "high pressure" salesmanship. The agent must be sincere in his desire to serve his client, otherwise he might be inclined to sell


COMMERCIAL
LIFE

—*By courtesy of The Commercial Life Assurance Company of Canada.*

A MODERN BUSINESS OFFICE.

his customer too much insurance, merely for the sake of the commission. He must inspire confidence in his customers so that they will come back to him again when they find it possible to add to their insurance program. From the standpoint of the agent, tomorrow's business is as important as, if not more important than, today's. Good mastery of the English language is very essential, since the work is mainly educational in nature.

The most successful agents are neat and pleasing in appearance and have no physical defects. They are keen students of human nature, have good memories and are careful of details. This latter is necessary, for a life insurance agent keeps a record of all his customers and their birthdays, in order that he may meet them at the most suitable time. The best time to meet a customer is just before his age changes, for after that there will be an increase in the premium rate. It is not wise to think of becoming a full time agent before one is at least 25 years of age because of lack of maturity. The young man can not inspire the confidence that is necessary in discussing family responsibilities with an older business or professional man. General recommendations as to character, health, ability and education are usually required from applicants for employment as insurance agents.

Training may be obtained by working under an experienced salesman, and supplementing this by a correspondence course. The C.L.U. has a three-year course which may be taken while the young agent is working in the field. Details as to cost and course may be obtained by applying at the branch office of an insurance company. Insurance companies also send out to the agent much material which is designed to educate the beginner in his work. Some youths receive valuable training by spending three months in a branch office under supervision. Training obtained as an insurance agent is applicable to many branches of salesmanship.

Earnings. Agents are usually paid a commission on the policies they sell. Executives and office workers are paid on a salary basis. Incomes may vary from $600 a year to $11,000, but at the present time the average is about $175 a month. Managers and branch managers are on a salary, but they may also write insurance policies and receive the commission. There is never any difficulty in collecting commissions.

The Work. The agent must meet prospective customers, keep in touch with old clients, carefully plan out each day's work and sell the individual the idea that he needs a certain policy. He must be able to plan an insurance program so that he does not overburden his client, but, at the same time, gives him enough of each kind of insurance to satisfy his needs and desires. Advancement to executive positions brings with it more office and executive work and less actual selling. "Monotonous" is a word which can not be applied to the agent's work, for every day brings him in contact with new persons and new problems.

Opportunities. At the present time the field is overcrowded. About one third of the population of Canada is insured, but it is difficult to say what percentage of the remainder can afford insurance. Only outstanding men can become successful insurance salesmen. Especially is this true during depression times, since success depends on individual initiative and ability. Persons who have the qualifications that we have mentioned and who are determined to succeed can win a place for themselves in the field of insurance salesmanship.

The business has made little progress since 1931. It is altogether likely, however, that it has not yet reached its peak and that it will come back as soon as economic conditions improve. The large industrial centres where employees earn steady wages are the best districts for an insurance agent.

Many successful agents do not place any limit on the length of their working day. They usually take public holidays, for it would be very difficult to do business on those days. They may take annual holidays if they desire. Holidays are usually taken during a quiet period.

Advantages and Disadvantages of this Employment. Retirement is suggested but not compulsory at 65 years of age. A pension scheme is in operation for agents of most of the larger insurance companies. The pension depends on the length of the service and the amount of insurance the agent has written.

An agent is free to spend his leisure time in whatever way he desires. He may have some hobby or he may use the time to increase his efficiency and number of "contacts." He gets his satisfaction from knowing that he has been the means of protecting the future of a client and of the client's wife and family.

Insurance salesmen usually find a respected place in society, and in local service clubs and social service work. Many agents are required to do much travelling and spend considerable time away from home. This is a fairly healthful occupation, although it may be rather trying on the nerves, due to temporary tensions caused by trying to close sales.

It might be worth noting at this point that insurance companies require an actuarial staff which is largely composed of university graduates who have specialized in mathematics.

Real Estate

The real estate business consists of finding purchasers and tenants for the many properties, including homes, stores, apartments, factories and lands, which form part of our modern world.

Most of us, at one time or another, are confronted with the problem of finding a suitable home. Those who have already had this experience realize how convenient it is to be able to consult some agent who knows what suitable properties are available and on what terms, and who can give reliable information as to their true value. An agent, then, would be very useful to vendor and purchaser, owner and tenant.

It will be noted from table LXIII that 130 men were listed as wage-earners in real estate work in Alberta in 1931. There were also 484 classified as gainfully employed. This means that 354 men were workers on their own account, employers, or unpaid family workers. From this it would appear that only about one man in four was engaged as an employee.

Qualifications and Training. It is necessary, then, to realize that in real estate work, the majority of workers eventually become employers or workers on their own account. A student should carefully consider whether he has the qualities and qualifications which will make for success. He must have a pleasing personality and the ability and desire to meet people, but he must also be able to deal with things and ideas. He requires a clean, neat personal appearance, together with a courteous yet persevering attitude. Patience, sobriety and reliability are important characteristics found in successful real estate agents. A wide practical knowledge of such things as land titles, mortgages, taxes, liens, judgments and seizures is of great value. It is wise to enter the occupation between the ages of 20 and 35 years. Entrance is not restricted by examinations. A valuable training for the work may be obtained in law or real estate offices. High school education is not required of men or women who desire to engage in this business, but a person would be wise to obtain as much advanced education as possible. A university course in commerce would be very valuable in seeking advancement as an employee, or in building up one's own private business. Many young men supplement their academic high school training with a business course before seeking employment as real estate agents.

Earnings. In the smaller offices or in a small private office, workers would be required to do all phases of the work. There would be office work, including clerical work on accounts and trust accounts. Agents would be required to meet prospective purchasers, sellers or renters. They would show the property to the client, look after property under lease and deal with the sale, transfer and lease of property.

If a young agent can obtain employment in a larger office, and shows the necessary ability he may be promoted to a position which requires less field and more office work, including supervision of assistants. Outstanding field men handle the larger deals. In this way, by receiving the larger commissions, they increase the amount of their earnings. In larger firms there is frequently a specialization among the employees. One agent may specialize in moderate and low-priced homes, another in expensive estates; some earn a comfortable living by confining their activities to leasing stores to chain-store companies. Some earn a reputation as reliable appraisers; others conduct a general agency without specialization in any line.

Opportunities. The training obtained as a real estate agent will be very useful in seeking employment in many other business enterprises. Men who have had this training have frequently transferred to mortgage and loan offices, or fire insurance companies. The chances of obtaining employment in Alberta are not very good at present. The greatest opportunities are to be found in larger centres during boom times. Owners of private firms frequently have very "lean" months, and especially has this been the case during the current depression. These men are usually agents for various kinds of insurance in order to add to their earnings.

A person who believes that he has the necessary qualifications, that he is capable of making a living in this precarious business, and that he can stand the many hard knocks until he is established, should seek employment in a real estate office in order to obtain practical experience. Application for work should be made to the manager of a real estate office.

The beginner must realize that essentially he is selling information, experience and judgment. None of these can be acquired overnight, nor can they be thoroughly acquired except by the man who is willing to begin at the bottom and work up, slowly and steadily. An agent needs a good memory in order to remember the characteristics of buildings and properties. He must be able to decide their value by comparison with other properties. He must be capable of expressing himself clearly and in such a way as to win the confidence of his client. A reputation can be built up on reliability and fairness; but it can be quickly ruined by a single mistake.

Hours. The hours of work tend to be rather irregular, especially for owners and men working on a commission. Salaried employees have regular hours and an annual vacation with pay. Changes in the management of a firm may result in some changes in the personnel of the staff.

Agents are not compelled to retire from work, nor have they a pension plan. Sickness, accident and life insurance are matters of individual concern. Salaries do not usually continue if an employee is forced, by sickness, to be absent from work.

Stock Brokers

There were 218 men listed as gainfully employed in stock and bond brokerage in Alberta in 1931. Of this number 101 were wage-earners, so that about one half of the men are employees. This is a fact which one who is thinking of entering this occupation must consider.

Training and Qualifications. Would-be stock brokers are advised to complete 4 years of high school education. Many of the young men now entering the brokerage business are university graduates. A good training in economics, money, banking and accounting are very useful for this work. A good mathematical mind is necessary for brokers. A pleasing personality and the ability to meet and converse with Mr. Citizen are very necessary. Individuals who are of a retiring nature or who are inclined to be too blunt in their speech and actions should realize that these qualities might offer some difficulties to their ultimate success. Honesty and the ability to inspire confidence in prospective customers are necessary personal qualifications. Any physical deformities would offer serious handicaps to a successful career as a broker. The main thing to realize is that a broker must be a good salesman. The best time to enter the occupation is when one is between 23 and 25 years of age, although some men have entered it as early as 18 and others as late as 45 years of age. It is difficult to attain any marked success at an early age because of the fact that it is almost impossible for a young man to inspire the necessary confidence in older business men.

Training is obtained by finding employment in a reputable brokerage house. Application should be made to the manager of the firm. It is necessary to learn the business from the ground up. Many men, who have had this training, have utilized their experience and knowledge to find employment in other branches of finance, such as in trust companies, banks, insurance companies, and various offices and commission houses.

Earnings. The young office employee usually starts as an office assistant at a salary of from $50 to $70 a month. A great range of salaries is to be found among brokers, depending on individual initiative and ability. Some men earn as little as $600 a year, while others receive as high as $5,000 or $10,000. The average earnings are estimated at from $150 to $250 a month. A common practice is to give the employee a small salary and a commission on his sales. The rate of commission depends on the type of stock being sold. In other cases only a salary, or only a commission may be paid. Bonuses are frequently paid to outstanding men.

Hours and Opportunities. Since many employees are working on a commission, the working hours and the length of the working day vary considerably from time to time and from one individual to another. The usual office hours are from 9 a.m. to 12 noon and from 1.30 to 5 p.m. All employees are entitled to public holidays. Salaried men are usually given an annual holiday of from 1 to 2 weeks. Commission men may take their holidays, without pay, whenever they desire.

This is a fairly old but growing field of enterprise. The greatest opportunities are to be found in the larger centres. One man engaged in this business has estimated that 20 brokers are sufficient to serve a city of 50,000 persons; another broker has said that at present there is not a surplus of *good* stock brokers. There are a variety of positions to which one may advance so that opportunities for advancement are fairly numerous for well-qualified men. Some of the branches of the work include: board marking, bookkeeping, buying and selling stocks, managing a department and managing a branch. Advancement means that the duties change from clerical and selling to administration. To be successful it is necessary to know the work thoroughly. Advancement depends on the individual and on economic conditions.

Employees in this branch of finance have not any organizations to regulate the number entering the occupation, or to uphold the rights of employees in case of disputes with employers. There is no compulsory retiring age, nor is there a pension plan in which brokers, as a group, may participate. The individual must take care of his own insurance through the regular insurance companies. The firm may make some arrangement to continue to pay salaries to employees who are forced to be absent from work because of sickness.

Advantages of this Type of Work. There is ample room for self-development in this work, depending on individual desires. The stock broker is constantly meeting people who have money to invest in enterprises which may be of great value to the community, and in that way he feels that he is contributing to the advancement of the community.

Since these men must have pleasing personalities in order that they may be able to deal successfully with the public, they are likely to have congenial fellow-workers. Initiative and originality are qualities to be found in successful brokers. Nerves and general health may be affected by the work, but, on the other hand, these men are not subjected to the risks and hazards that are to be found in some types of employment.

Bond Brokers

The academic qualifications and personal qualities found in successful bond brokers are much the same as those found in stock brokers. An attractive, fairly aggressive personality is essential; industry, perseverance and the ability to form accurate conclusions are necessary. Good mathematical ability and a knowledge of psychology would be very valuable assets for a bond broker.

Applicants for employment as office clerks should be at least 18 years of age. Recommendations as to character and education should be included with the application. Junior clerks begin work at about $40 a month. Executive officers may receive as high as $15,000 a year, depending on the locality and the activity of the market.

The bond broker receives his satisfaction from the feeling that he is aiding citizens to make good investments by reason of his special knowledge of the market; and by supplying facilities for financing industry and government. Only a few bond salesmen are required to do much travelling.

What has already been said of stock brokers might well be repeated for bond brokers.

Bank Employment

Since 1930 there has been a steady decline in the number of branch banks in both Canada and Alberta. It is altogether likely that there has also been a decline in the number of employees, but this information is not available from the census reports. There were 1,856 men and women gainfully employed in all occupations in banking in Alberta in 1931. The following table shows the extent of the decrease in the number of branch banks since 1931.

TYPICAL INTERIOR OF A BANK.

TABLE LXV

NUMBERS OF BRANCHES OF CHARTERED BANKS IN CANADA AND ALBERTA, DEC. 31, 1931-36

	1931 No.	1932 No.	1933 No.	1934 No.	1935 No.	1936 No.
Canada	3,970	3,772	3,637	3,527	3,431	3,398
Alberta	278	251	235	215	209	200

Source: Canada Year Book, 1936, 1937.

Qualifications and Training. The qualifications of applicants are checked much more carefully now than they formerly were. The reason for this is not hard to discover. It has been found that many young men are unsuited to the work and it has been deemed an injustice to allow them to go on with the work year after year, with very little prospect of being successful and happy in their work.

Applications from youths who are between 16 and 19 years of age, who have complete senior matriculation and who appear bright, intelligent and moderately aggressive are given careful consideration. It is very rarely that a boy over 20 years of age is accepted by the bank. Tact, neatness, accuracy, perseverance, courtesy, initiative and promptness in attending to details are characteristics required in a successful banker. He must have good judgment, and be neither too servile nor too self-opinionated. He must be honest, reliable, frank, willing to co-operate and emotionally stable. Good health, eyesight and hearing are essential. Employees in most banks are required to pass a medical examination before they are permitted to share in the pension scheme.

Banks prefer to engage grade XII graduates who are neat writers, and good at arithmetic. They must submit recommendations from two prominent business men and from the local bank manager. Bank clerks are enabled, and indeed are encouraged by means of bonuses, to increase their knowledge along certain lines through correspondence courses which are offered by McGill University. These banking courses usually require about 4 years of study. They are divided into two sections, namely the junior and senior courses, and cover practical banking, commercial and foreign exchange, English composition, economics, auditing, accounting and foreign exchange. The fees, including the cost of the books, are paid by the bank.

Bank training is very valuable and may be used in seeking employment elsewhere in commercial houses as bookkeepers or managers or in trust, mortgage and insurance companies. It is very valuable training for a man who desires to become an accountant. Many successful business men received their early training in the banks.

Earnings. The following table gives a general idea of the range of annual salaries to be found among bank employees:

Junior	$600
Ledger keeper	$800 —$900
Teller	$800 —$1,000
Accountant	$1,500 —$2,000
Manager	$1,800 —$10,000
Superintendent	$6,000 —$10,000
General manager	$10,000—$25,000

If business conditions warrant it, increases are granted at the rate of about $50 a year; exceptionally good men might be given $100.

It takes years of training before one can be considered an efficient banker. The length of time depends on the individual. It is possible, by close application to work, to learn most of the work fairly quickly, but the average young man would require at least 10 years to become thoroughly acquainted with the duties required.

The Work. Training is started after the applicant has entered the services of the institution. He commences as a junior and learns about collections, cheques, deposits and balancing books. Then he learns to keep the ledger. Great care and accuracy are necessary in this work. As teller he learns to sell drafts, money orders and foreign exchange and begins to learn accounting. The accountant should understand the double entry system of bookkeeping, know how to make all statements required by head office and have a complete knowledge of the routine end of banking. From 15 to 20 years of service in the bank are usually necessary before a man can expect to be promoted to the position of manager. The manager is in charge of the trust funds deposited by the bank's customers. A manager may be promoted to inspector and then to the office of the superintendent, where credits submitted by the branch managers are considered.

Hours. Working conditions vary greatly between the smaller towns and the cities. An officer in the bank generally works as long as there is anything to do, since each day's work must be completed that day. The hours of work are generally from 9 a.m. to 5 p.m. daily, but very often the volume of business causes considerable night work. Banks observe all public holidays. Bankers receive from two to three weeks' annual vacation. Most individuals who enter the bank are expected to remain with it for life, but, as indicated above, some leave the service to find employment in other commercial enterprises.

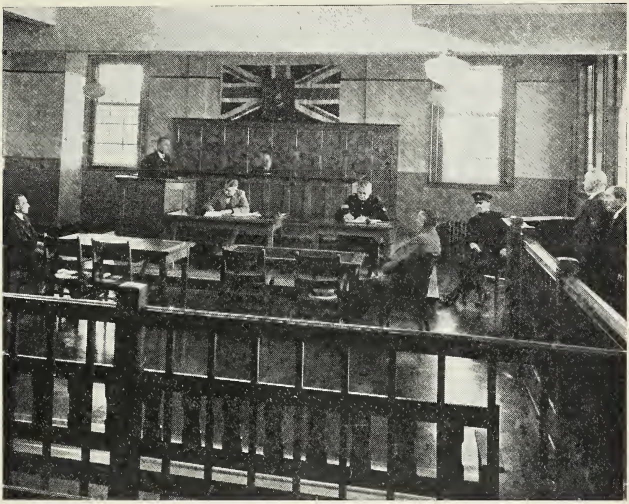
Opportunities of obtaining employment and advancement are rather restricted at present, although one banker has said that the demand for the proper material is greater than the supply. Application for work should be addressed to the local bank manager. The written application should be followed by a personal interview with the manager.

Advantages and Disadvantages of this Type of Employment. There is no compulsory retiring age, although managers usually retire between 60 and 65 years of age. Employees and the institution both contribute to the pension fund. Group insurance for illness and accident is available for employees in most banks. Wages continue during an illness for about a month or two and, in some cases, during the duration of the sickness.

Bankers are accorded a high social position in the community. They are sure of their positions as long as they are doing their work, and they participate in a pension scheme. The work is largely repetitive in nature, but congeniality of associates tends to relieve the work of any monotony that might arise. Only auditors and inspectors are required to do much travelling. As a rule bankers do not take part in politics. There are excellent opportunities for self-development within the occupation. There may be some ill effects on general health, nerves and eyes, but there is ample time in which to take part in active, outdoor sports to counteract the sedentary nature of the work itself.

CHAPTER XI

PROFESSIONAL SERVICE



Professional occupations are desired by the majority of students in city, town, village and rural schools. Approximately 48% of the 815 students questioned as to what vocations they would like to enter, chose some branch of professional service. In comparison with this, it should be noted that only about 6% of the gainfully occupied population in Alberta are in the professions.

Now it must be realized that most professions require their members to have at least senior matriculation followed by several years of university training. This means that any student desiring to enter a professional occupation must be willing to spend several years in intensive study, and he must remain a student all his life. He must have the ability to master the material necessary for success in his chosen profession. Then, too, considerable capital is necessary to enable one to complete a university course. Formerly many students were able to obtain employment during the summer months and thus help to finance their university education. At present such employment is somewhat difficult for the majority of students to obtain. Engineering and agricultural students can usually obtain summer employment.

Many professions are now overcrowded, and so, unless a student is sure of his ability, he should think carefully before definitely deciding on a professional career, for the competition is likely to be very keen. This is, of course, more true of some professions than of others. The post-war period has seen a reduction in enrollment in medicine, dentistry, pharmacy, law and theology. The increase in university graduates has been almost entirely restricted to the Arts and Sciences or related Faculties. There has been an increase of about 50% in the annual number of graduates of Canadian universities since 1923. In the following chapters it is proposed to deal with 27 of the occupations that are classified, in the census returns, as professional services.

The following table indicates the average earnings and weeks of employment of those wage-earners in Calgary and Edmonton in 1936 who were engaged in professional service. The table gives the information for both male and female employees. It is interesting to compare the average working year of professional employees with that of others.

TABLE LXVI

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT OF WAGE-EARNERS ENGAGED IN PROFESSIONAL SERVICE IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Male			
Agricultural professional	26	1,668	46.2
Accountants, and auditors	762	1,635	47.1
Journalism	85	1,530	47.4
Chemists, assayers, metallurgists	78	1,440	46.2
Civil engineers, surveyors	145	1,835	42.9
Clergymen and priests	136	1,490	49.6
Designers and draftsmen	53	1,166	41.4
Electrical engineers	53	2,000	48.5
Lawyers, notaries	40	1,925	51.5
Mining engineers	25	1,605	35.3
Musicians, music teachers	97	500	27.1
Opticians	18	1,830	52.0
Photographers	38	810	36.9
Physicians and surgeons	37	1,710	41.0
Dancing and physical training teachers	19	1,295	42.2
Teachers—school	516	1,565	44.6
Female			
Journalism	13	800	43.5
Librarians	40	1,130	51.0
Musicians, music teachers	40	435	35.0
Nurses—graduate	438	718	38.6
Photography	21	581	46.8
Social Welfare	13	707	38.8
Teachers—school	952	1,135	45.7

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

The following table indicates the population per certain selected professions in Alberta 1911, 1921, 1931. In reading this table remember that the larger the population per professional man, the fewer the members in that profession. Notice that the population per clergyman has increased steadily since 1911. This means that there are fewer men training for the ministry, and that the number of clergymen is not growing as quickly as the general population. On the other hand note the decrease in the population per teacher, indicating that the number of teachers has grown much more quickly than the general population.

TABLE LXVII

POPULATION PER SELECTED PROFESSIONAL OCCUPATIONS IN ALBERTA, 1911, 1921, 1931

	Population per selected profession 1911	1921	1931
Medicine	1,015	1,074	1,255
Dentistry	3,570	3,080	3,167
Nursing	1,045	543	375
Lawyers and notaries	1,415	1,082	1,340
Clergymen	602	812	816
Musicians and music teachers	1,795	1,575	1,500
School teachers	204	139	114
Engineers	1,110	761	920

Source: Adapted from Canadian Census reports 1911, 1921 and 1931.

The Ministry

Before considering the qualities and qualifications required for success in the ministry it would be interesting to note a few statistics about the number of ministers and clergymen. Since 1901 there has been a steady increase in the population per clergyman. (See tables.) Another interesting fact is that on the whole the Church differs from the other professions in that the population per clergyman is smaller in rural than in urban centres. Finally, it appears that the supply of qualified clergymen is not being maintained.

Qualifications. In this profession more than in any other, success is predominantly determined by the character of the individual. Very few students who register for theology fail to complete the course. Of those who do drop out, about one half do so at the request of the Church, which arrests their progress because they are not suitable material. Further, fitness for the ministry must include a very high regard for the spiritual values of life. There is no profession which will make greater demands on the spiritual, mental and physical resources of the individual than will the ministry; but neither is there one which will pay greater dividends in terms of service to one's fellowmen.

Let us now see what type of men are needed in the ministry.

"1. Men of wholesome, healthy bodies and natural ability.

2. Men of education—to whom the educated men in their congregations can look with respect.

3. Men who have natural gifts as public speakers or who have trained themselves to be good teachers.

4. Men who know Christ as their personal Saviour, and who believe that the greatest need of all men is to have Christ as their Saviour.

5. Men who are noble in character, true in speech, ready to spend and be spent for the unworthy and unthankful.

6. Men who love their fellows, who love even the unlovable for Christ's sake, whose sympathies go out to the needy, the suffering, the weak and the fallen.

7. Men who seek first the Kingdom of God and his righteousness and find in the command of Jesus to preach the Gospel to every creature, their supreme ambition in life."[1]

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[1] From a radio broadcast given in 1932 by Dr. Alfred Gandier, Principal of Emmanuel College, Ontario.

A minister must have a broad outlook; he must be aware of what is going on in the world. He should be prepared to condemn the evils in the structure of society and to present an ethical pattern in accordance with which a new society could be built. He ought to have a word for the world in its distraught condition.

Training. Students who are thinking of entering the ministry should take the regular courses leading to senior matriculation. They should include Latin among their studies, and should pay special attention to reading, English composition and literature, and science. They should take the science courses, not so much for the factual matter as for an acquaintance with the scientific method so that they may have an appreciation of the scientific spirit.

After 4 years of high school education they should attend university. United Church ministers may be trained in Edmonton; others must attend universities outside of the province. They should take an Arts course before registering for the Theological course. Such Arts courses as philosophy, psychology, sociology and science should be studied. Such subjects as Biblical interpretation, theology, church history, history and theory of preaching, philosophy of religion, hymnology and elocution form the essential part of the training necessary for one who would enter the ministry. This training is of great value should the minister later decide that he would like to do literary work or become engaged in lecturing or church organization work.

A few small scholarships are offered to theological students at most colleges. Young men in training for the ministry may also obtain summer employment as "student preachers" in rural areas of the province.

The Work. The duties are manifold. The minister must preach and teach and organize. He is expected to pay pastoral visits and give interviews. He is in charge of baptisms, marriages and funerals. He is expected to take an active part in community organizations and clubs, board of trade work, boy scout and other young people's organizations. The more desirable positions require men who are capable of accepting great responsibilities and who have executive ability, so that advancement depends upon individual ability and initiative. Men with this training may enter pastoral work or the missionary field. The minister has no fixed hours for his work, but his day is usually long and busy. Ministers are usually given an annual vacation of about 1 month.

Pension schemes are available for ministers. Insurance against accident, illness or death are matters of individual concern. Pay usually continues indefinitely during an illness.

Great inner satisfaction results from the upholding of the spiritual life, and the lending of a helping hand to every good work in the community. The minister is, indeed, respected and looked to for leadership by the whole community. There are excellent opportunities for self-development within the profession and for the use of one's initiative and originality. While the work does make great demands on the clergyman, there should be no marked ill effects on the health and nerves of the minister.

Salaries range from $800 a year for beginners to $5,000 for men in the large city churches, although there are very few men receiving less than $1,000. The average yearly income in Canada in 1931 was $1,530. It is estimated that a young minister would require 1 or 2 years after graduation before he could hope to be in a position to support a home.

The United Church in Alberta this year found that it required the services of 17 more ministers than it could obtain. By re-arranging the districts it was found possible to give church services to 7 of these parishes. This meant that the Church was forced to close 10 of its parishes. Now an apology is in order for presenting mercenary considerations in a discussion of this profession. However, it is the case that employment opportunities depend mainly upon the ability of churches to support a trained ministry. While there is a shortage of professionally trained men, the fact of the matter may be that the churches are unable to support a greater number of ministers and clergymen. In choosing the ministry, then, a student should be, and indeed, must be, motivated almost completely by religious considerations.

Teaching

Teaching, as a profession, is of the highest importance, and is an occupation in which one may enjoy a great deal of inner satisfaction. Teachers, as a rule,

A Kindergarten Class.

are likely to have congenial associates and have excellent opportunities for stimulating pursuits in their leisure time. There are wide opportunities for self-development, originality and initiative, so that monotony need not characterize the work. The effect of teaching on general health may be considerable, depending upon the emotional stability of the individual teacher.

Qualifications. In order to be successful the prospective teacher should have a wide understanding of children, good organizing ability and a fine cultural background. The teacher needs to be tactful and sincere, with a sense of fair play and with high ethical and moral principles. Good physical health is a definite asset, while physical deformities and disabilities and defects in hearing, eyesight and speech are handicaps which practically exclude an individual with these defects from the profession. A student must *have a liking for children and a facility for explanation. Without these he should not choose teaching for his life work.*

Teaching is one of the most important of the professions. As a result the very highest of qualities are demanded in teachers. The personality of a teacher is often the only guarantee of a lasting influence of a subject on a pupil. A few of the qualities to be desired in teachers have already been indicated. Further personal qualifications include:

(1) Physical soundness and health. Teaching is a physical strain and unless the teacher is healthy he is apt to be nervous and irritable with the students.

(2) Good mental equipment and native ability as a student.

(3) Good morals, because teaching alone is not enough to develop sincerity, loyalty, honesty and truthfulness in students.

(4) Good personal appearance.

(5) Patience, sympathy and kindness.

(6) Good common sense in order that he may meet the many difficulties that may daily confront a teacher.

(7) A sense of humor is a valuable asset for any teacher to possess.

In order to enter the teaching profession it is necessary to be certificated by the Department of Education, Alberta. Upon completing the required professional courses at one of the normal schools or at the School of Education at the University of Alberta, the successful candidate is granted an interim certificate which may be re-issued as a permanent certificate upon satisfactory completion of certain further requirements.

Training. In the future the Department of Education will issue 3 types of certificates, namely, the High School, Intermediate School and Junior School Teachers' certificates.

In order to obtain the High School and Intermediate School certificates a student must (1) complete senior matriculation, (2) obtain a certain university degree,[1] and (3) successfully complete 1 year of professional training in the School of Education.

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[1] In this connection there are certain facts which must be carefully considered. In the first place it is generally agreed that an Honor's course is superior to a pass course. However, the type of schools found in Alberta favors a general Arts degree. A teacher with this latter degree has the advantage during the first 3 or 4 years, but he or she may be forced to remain in the smaller school. While specialists are at a disadvantage at first, they soon get into the larger schools. What is the solution to this difficulty? Students would be advised to take a general arts course, carefully planned under the supervision of the Director of the School of Education, and then the School of Education training. Then he should proceed to obtain his Master's degree, which can be obtained by attending courses offered at the Summer School in Edmonton. Information regarding the cost of obtaining the School of Education certificate is contained in the calendar of the University of Alberta.

In order to obtain the Intermediate and Junior School certificates a student must complete the normal entrance course offered by high schools and then attend one of the Alberta normal schools.

Besides this academic education, training in music, art, and physical education are very valuable for the prospective teacher. Specialists' certificates for teaching optional subjects may be obtained by attending summer sessions at the University of Alberta or the Institute of Technology and Art, Calgary. It is also possible to improve one's academic qualifications by attending these summer sessions.

Normal school training requires a period of 36 weeks, and is offered at Calgary, Edmonton and Camrose. Expenses for this training are approximately as follows: fees, $100; board, $225; books, $35; besides incidental expenses such as travelling and amusement.

The normal schools and the School of Education provide facilities for actual practice teaching in various rooms in city schools under the supervision of well-qualified teachers.

Earnings. At the present time the initial salary received by young teachers is approximately $600 a year. Salaries range from $500 to $4,000 per school year of 200 teaching days. The salary depends upon the type of school in which one is teaching and upon one's certificate. The average annual salary in Rural Schools in Alberta in the year 1935-36 was $730.74. There were 3,727 Rural School teachers that year. The average salary for 6,001 Alberta teachers was $928.41. (Report of Dept. of Education, Alberta, 1936.)

The number of Canadian teachers being certificated annually has been steadily declining since 1924. In 1924, 8,112 new teachers were given certificates. The decrease in the number of normal school graduates accounts for all of this decline, for the number of university trained teachers has increased each year. In the last 4 years male teachers have increased by about 3,500, while the number of female teachers has decreased by about 800. It is estimated that too many teachers are still being certificated each year. (Educational Bulletin No. 2, Supply and Demand in the Professions in Canada.)

At the present time there are no salary schedules in effect for teachers in Alberta. The Alberta Teachers' Association has had a great influence on teachers' salaries. The Department of Education has made provision to aid the teacher in collecting his salary. The advanced positions in educational work are more administrative and specialized in nature. Advancement depends upon ability and the amount of specialist's training one has had. At the present time there does not appear to be an oversupply of qualified teachers.

In the past, the greatest need for specialists has been found in the higher grades. However it is now considered advisable to put the best high school teachers in the lower high school grades, as it is thought that the foundations that a pupil receives are a matter of major importance for his ultimate success. Further, it would appear that only well-qualified teachers can handle such subjects as *general* science, *general* mathematics and the social sciences. Specialist's training is of great importance in almost any branch of education.

Hours. The teacher is on duty from 9 a.m. to 12 noon and from 1.30 p.m. to 4 p.m. for 5 days a week. Besides the regular work in the classroom the teacher must also spend some time preparing next day's lessons, marking exercises, preparing and marking tests and examinations, giving extra help to those pupils in need of it, as well as carrying on such extra-curricular activities as sports, dramatics, glee clubs and various other organizations which are in the charge of the teacher. The teacher is also expected to take an active lead in the affairs of the community.

The annual holidays extend over a period of approximately 8 weeks: but a teacher should take refresher courses and courses giving certificates in certain optional subjects during the summer months. Such courses should be taken possibly every 3 or 4 years.

Other Features. The number entering the profession can be regulated by the Department of Education. Security of tenure has long been an important question for teachers. Recently the Board of Reference was reorganized to arbitrate on the dismissals of teachers. The Alberta Teachers' Association has often acted to uphold the rights of teachers who have found themselves in difficulties with their school boards.

There is no compulsory retiring age for teachers, nor is a pension plan available for them as members of the teaching profession. The A.T.A. is at present making a survey of different pension schemes now in operation. Group insurance is not available for teachers. Some A.T.A. locals have special arrangements with their local doctors and hospitals which give them certain medical and hospital privileges at greatly reduced rates. School boards pay teachers' salaries for a period of 20 days per year in case a teacher is forced by sickness to be absent from school.

What are the advantages of belonging to this profession? The teacher is guaranteed a moderate salary, rather short working hours and long holidays. He is allowed 20 days' sick leave each year. He receives, or should receive, great satisfaction and pleasure from rendering a social service to the future members of society.

What are the disadvantages? The work is of a sedentary nature and may cause severe nervous strain. It may become monotonous, but should not for the successful teachers. Frequently it appears to be a thankless job; the teacher is frequently subjected to much criticism. Finally it is very difficult to amass even a moderate fortune.

Interpreters

An interpreter must have an interest in persons rather than in things. He must be a ready talker, quick-witted, and able to express himself clearly and quickly. A taciturn individual would not likely make a success of this occupation. The majority of interpreters are mature individuals between 40 and 50 years of age. Such men must have linguistic ability in at least two foreign languages, excellent mastery of the English language and some court experience. Interpreters would be well-qualified to find employment as translators for publishing houses, with export and import firms, in language schools and as free-lance writers.

A student who is thinking of becoming an interpreter should finish four years of high school, emphasizing languages, and then take university work, specializing again in languages.

There are about six salaried interpreters in Alberta. Parliamentary interpreters are well paid. The number of court reporters required is tending to decrease rather than increase. The more capable and experienced men are more apt to obtain steady employment because they are more capable of dealing with the many and varied situations with which they may be confronted.

Application for employment should be sent to the Civil Service, Consular Service or Trade Commissioner. Employees of the Civil Service are retired at about 65 years of age with a pension. Interpreters get a great deal of satisfaction from being able to read books in the original language, and from feeling that they are necessary for the carrying on of certain businesses.

The work is not usually considered monotonous. While there may be a variety of duties, initiative and originality are not so important as quickness of mind. There are excellent opportunities for self-development by increasing one's knowledge of languages, as well as general knowledge by reading original publications.

Musicians and Music Teachers.

Nine Canadian universities offer courses leading to the Bachelor of Music degree. Only a few dozen such degrees have been awarded since 1920. The increase in the number of musicians has been continuous since 1921. It is interesting to note that this increase is due to the greatly increased number of male musicians. Women are in the majority in the teaching occupation.

Opportunities. Music is a profession which demands students of the highest ability and, except for a few of these, there are very limited opportunities. However, there are excellent opportunities in music as a hobby and for purposes of appreciation. Of the many children who are forced to take music lessons very few will ever attain the degree of skill that is required of concert performers. For the great majority of these children, music will remain a minor accomplishment; they may be able to supplement their incomes from their regular occupations by singing in church choirs, playing in orchestras or teaching. *Music offers a full-time occupation for only a very limited number of people.* Students must accept the fact that music is a field in which hard work and poor pay are apt to be the rewards. Love of the beautiful and an urge to express that love, are not indicative of ability nor assurance of success. On the other hand, success is pos-

PHILHARMONIC ORCHESTRA, UNIVERSITY OF ALBERTA.

sible only if the love of music envelops a person's whole mind, if he is convinced that he has a strong musical sense, and that he has the capacity for the hard work and study that will be necessary before he can attain even moderate success.

Where does the modern musician find employment? In a general way musicians may be classified in three major groups: instrumentalists, vocalists and teachers of music. Soloists are required for piano, violin, 'cello, organ and voice. Musicians are required for such positions as church choir directors, organists, accompanists for soloists, professors at conservatories or musical colleges, musical journalists, conductors of orchestras or choral groups. The field of composition has the most to offer in the form of self-expression but it is the least promising in its financial rewards. Finally, in the teaching profession, musicians may have their own private studios or they may be employed by some well-established school of music. Organists and choir directors frequently build up a teaching connection from the congregation of the church, thereby adding to a salary, which, except in the very largest churches, rarely supplies enough money for even a normal livelihood.

Since the talking pictures have become well established the demand for instrumentalists has decreased to a minimum, although there are still a few vaudeville houses which require orchestras, and certain restaurants which employ a string ensemble. The radio creates a certain demand for instrumentalists, but as indicated above, recent developments have localized this demand. There is also a moderate demand for players for symphony orchestras. However, only in the United States has this latter been developed to the extent that members can be paid a full-time living wage. In Canada, band and orchestral work is largely "side-line."

Earnings. It is very difficult to give much accurate information as to the earnings of musicians. A few very great stars are highly paid—but these are very few in number. The great majority of musicians find it very difficult to make a living through full-time engagement in the profession. Some church organists might receive from $1,500 to $2,000 a year, but there are many who receive much less. Church soloists in the larger cities might be paid $500 a year. Soloists for local concerts might receive anywhere from $5 to $50 per night. Instrumental musicians, who are members of the Musicians' Union, are paid a fixed fee. A great range in salaries, from very little to $5,000 a year, is to be found among music teachers.

Talking pictures and radio have to a great extent localized the work of the musicians. Transcriptions are made in such large centres as New York, Chicago and Los Angeles and are leased to various radio stations, thereby eliminating the need for local musicians. In some cases the general public is enabled to hear a better class of music, and in some cases worse, but on the whole it does not encourage its own local talent, and deprives local musicians of a livelihood.

Training. A musician can not be too well educated. A student who has definitely decided that music is to be his career should complete a university course leading to the B.A. degree before taking the Bachelor of Music course, if he finds that this latter training is necessary for the branch of the music profession that he desires to enter. Those who have the necessary talent and show great promise should then have at least one year of study in Europe.

With the possible exceptions of acting and writing, the production of music is at present the most popular and effective form of self-expression. In some branches it has become so popular that commercialization has definitely lowered the standard. However, music is one of the finest methods of character development that man has developed. The musician is dealing almost entirely with the artistic side of life. Music brings joy, happiness, relaxation, a sense of the finer values of life and a stronger belief in the ultimate goodness of mankind. Stop for a moment and imagine a world without music of any kind and you will discover how much we are in daily debt to this great branch of art.

Only exceptionally talented musicians become artists or concert performers. These latter must be mentally and physically able to endure the strenuous work required of great artists. Most musicians have passed their period of greatest ability by the time they are 45 or 50 years of age. Young musicians are preferred. Besides these facts you should also note that musicians have very poor security of tenure and that employment is seasonal and subject to fads.

The University of Saskatchewan offers a course in music, the details of which may be obtained by writing the Registrar of that university for a copy of the calendar.

Conclusion. In conclusion let us note three facts about music and musicians:

(1) Only a very few people can hope to make a success in the profession.

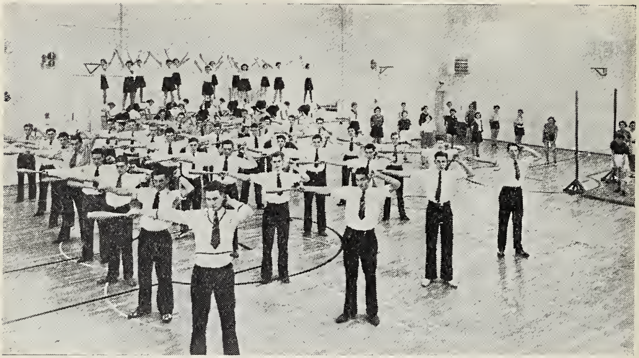
(2) A certain number of people have the talent to attain to such a degree of skill that they may supplement their regular earnings by part-time employment in some branch of the profession.

(3) Most people cannot attain the skill needed for employment in either field as outlined in (1) and (2), but many can become skilful enough to obtain a great deal of satisfaction from this form of self-expression. Students, then, are recommended to obtain as much musical education as possible, if only for this latter reason—for the pleasure of self-expression, quite apart from any consideration of monetary return.

Physical Instruction

There were 29 men and 18 women classified as gainfully employed in physical instruction in Alberta in 1931.

Qualifications. Physical instructors should have at least three years' of high school education. They must have a general knowledge of all physical activities and games, and a knowledge of physiology, hygiene and anatomy. They must have a good physique and appearance, and a definite liking for children and this kind of work. They must be capable of forming a decision quickly and accurately. They must have the ability to demonstrate the work, discipline the class, make the work in-



teresting, and have all members of the group take an active part in the work.

Most instructors enter the occupation before they are 30 years of age. Physical instructors for schools in Alberta will soon be required to hold one of the following certificates for physical instruction: (a) elementary school certificate, (b) intermediate school certificate, or (c) senior high school certificate.

Training. Training may be obtained in any of the following ways:

(1) Take normal school and two summer school sessions in physical training as offered at Edmonton. At present this qualifies one as a physical instructor in Alberta schools.

(2) Advanced courses are offered by McGill University.

(3) Courses may be taken in American colleges such as in the Y.M.C.A. at Springfield, Mass.

(4) Normal school instructors' courses are offered at Aldershot, England.

McGill University offers a four-year course. The courses taken include physiology, anatomy, hygiene, first aid, apparatus work, club swinging, wand work, dancing and games. In McGill University for the past two years only four or five students have taken the full-time physical education course. This condition has been brought about by the fact that many of those who are already qualified have been unable to secure positions.

Opportunities. As yet there are very few full-time jobs in this province, so that it is very difficult to give any accurate information as to salaries. Earnings probably average from $1,000 to $1,500 a year for experienced instructors, who can also act as supervisors and organizers of athletics. Most of the physical training teachers in schools are doing only part-time work in physical instruction and so are classified as school teachers in the census. (See the section dealing with Teachers, page 276.)

At present there are very few openings in this field in Western Canada, but it is expected that the recent growth of the intermediate school movement will increase the demand for qualified physical instructors.

An instructor is required to teach and supervise all branches of physical training. He organizes and supervises football, basketball, baseball and hockey leagues, and is responsible for the organization of athletic meets.

In schools the hours are fairly regular, but in most other branches as in Y.M.C.A., Y.W.C.A., gymnastic clubs or athletic clubs the hours are long and irregular.

Other Features. If the instructor is interested in children, the general health of the community, physical activities, and sports' problems, he can obtain a great deal of satisfaction from seeing his classes progress. The work is very important in that it is the means of developing good posture and health habits in children and adults, and, by keeping them fit, trains them for exercising originality and initiative. On the whole the effect of the work on the health and nerves is good, although it may be somewhat trying on the nerves. However, a great deal depends on the general physique of the individual and whether he takes care to make good use of the members of the class for demonstration purposes.

Further information might be obtained from

Miss Marjorie Davidson,
Y. W. C. A.,
Montreal.

Library Work

Importance of the Work. Mr. C. R. Sanderson, B. Sc., Deputy Chief Librarian of the Toronto Public Libraries, in a radio address arranged by the Vocational Department of the Western High School of Commerce, Toronto, has given us the following statement relative to the importance of libraries. " . . . they make available up-to-date knowledge on things we want to know; our trades, our professions and the topics in which we are interested. On another side they enable us to keep in touch with other people's ideas; they enable us to learn to think; to think straight; to think honestly; to think for ourselves. And on yet another side they give us contact with art and help to keep alive and develop the finer side of our appreciation, because a fine book is just as much the creation of an artist as is a fine picture or a fine musical composition." Men and women who have become established in a profession do not stop learning—they must keep abreast of the times and libraries make this possible. Many large commercial enterprises maintain libraries for their own specialists and staff. Most of us cannot afford to buy all the books we would like and we

A CITY LIBRARY.

certainly can not buy all we would like to read, and so we must borrow from the library. A librarian, then, is engaged in an educational work which is of the greatest importance to the community.

The Work. In smaller libraries the librarian is often required to handle all branches of the work, but larger libraries are departmentalized. There may be a reference division, a circulatory division, a division for boys and girls, and cataloguing, registration and order departments, each with its own officers and staff.

This is predominantly a single woman's profession, except that many libraries have men in the more responsible positions.

Tables LXVIII and LXIX give some idea of the importance of libraries in Canada and Alberta. In order to compare Alberta with Canada as a whole it should be remembered that the population of Canada is approximately 14 times that of Alberta.

TABLE LXVIII

LIBRARY STATISTICS FOR CANADA AND ALBERTA IN 1935

	Libraries No.	Volumes No.	Circulation No.	Borrowers Registered at end of year No.	Expenditure on Books & Periodicals $
Alberta	24	230,775	1,554,455	63,960	27,282
Canada	642	4,848,793	21,137,902	1,199,815	448,251

Source: Canada Year Book, 1937.

TABLE LXIX

STATISTICS OF LIBRARIES AND LIBRARIANS IN ALBERTA AND CANADA, 1935

	Number of Libraries with salaried staff	Number of Libraries with any trained staff	Number of Librarians and Assistants	Number of Librarians with Library School Training
Alberta	15	4	55	7
Canada	275	72	967	374

Source: Supply and Demand in the Professions, Educational Bulletin No. 2, 1936, Dominion Bureau of Statistics.

The work of the librarian is very exacting, requiring hard indoor work under artificial light and long hours on one's feet. The successful librarian must have an engaging personality and must be adaptable, courteous, tactful and have the ability to work on friendly terms with her associates. Good eyesight, health and general appearance are very necessary for success as a librarian.

Nervousness or any marked physical deformity would be serious handicaps in an already exacting profession. Most librarians enter the profession soon after they become 18 years of age.

Training. To be a successful librarian a student should complete senior matriculation. More and more libraries are also demanding university graduates who have taken courses at a library school. In fact it is only these latter people who should be called librarians in a professional sense. McGill and Toronto Universities have offered full time library training for librarians since 1928. Approximately 50 or 60 young women graduate from these two library schools annually. Applicants for this training must be university graduates.

The training thus obtained may be utilized in obtaining positions as book salesmen, in book departments of large stores, in technical libraries of industrial concerns or with publishing houses and newspapers. These trained librarians are also found in universities, colleges and normal schools, in government departments, technical societies and secondary schools. The trend in larger secondary schools in certain sections of the country toward employment of librarians suggests that this may become one of the chief openings for trained library personnel.

Earnings. Librarians may receive $60 a month when they start work. Salaries range from $720 a year to $2,400, while those individuals who are in the more responsible positions in larger libraries may receive as high as $6,000 a year. As a rule there is no difficulty in collecting salaries.

In Alberta there are not many opportunities at present. It is doubtful if as many as six library positions are filled each year, and there are more people desiring library work than can be engaged, so that the more highly trained people are more likely to obtain positions.

Other Features. As a rule librarians work about 8 hours a day for 6 days a week. Public holidays are nearly always observed and from 2 to 4 weeks with pay is the usual annual holiday. Besides the regular work in the library, the librarian is frequently required to speak in public, to give book reviews and radio broadcasts. Advancement in this profession means more responsibility and less contact with the public. The work is freed from monotony by reason of the varying public demands.

There is no compulsory retiring age, nor any general pension plan for librarians. Most librarians can take out group insurance against sickness, accident and death. All librarians in Calgary are protected by the Library Board against accidents in the library.

Library work is now regarded as a profession, with a consequent increase in social recognition. There is a great amount of inner satisfaction arising from the work by reason of the fact that the librarian feels that she has served the public in an educational way by aiding certain individuals to increase their business and technical efficiency and by being an important factor in adult education. Due to her close association with books, both new and old, the librarian has excellent opportunities to cultivate her interests and for self-development within her chosen profession.

The Legal Profession

To succeed in this profession one must have a liking for the work, or it becomes drudgery. A lawyer must be a student at all times. He must work diligently in order to build up a broad background of knowledge. He must develop such a character as will make him worthy of respect and trust. This is essentially a profession for

Law Library, University of Alberta

thinkers, not for dreamers. From this short survey it is clear that three qualifications, namely, industry, ability and character, are absolutely necessary for success in law.

Qualifications. A lawyer must be willing to apply himself diligently for years and years, often with very disappointing results, before he begins to reap the rewards which he deserves. Moderate ability, accompanied by the will to succeed, will usually bring success. Reading should be a hobby in order that a broad knowledge of men and their affairs may be acquired. Oratory or eloquence are not essential to success in law, for the majority of lawyers never go to court, and their success comes with their ability to think clearly and advise wisely. An upright, honorable character is essential to permanent success, because the lawyer carries with him the secrets of his clients, their investments and their family problems. The client respects him for his honesty and trustworthiness, as much as, or indeed more than, his brilliance and ability. This confidence is the foundation for success.

Training. Would-be lawyers must complete senior matriculation before going on to university. They may enter the Faculty of Law by one of two methods:

(1) They may obtain a B.A. degree or its equivalent before taking professional training. This would require the student to spend 6 years in study at the University of Alberta.

(2) They may take a combined course leading to the degrees of B.A., LL.B. This training may be completed in 5 years. After completing the training the graduate is required to spend one year in a law office under articles. Before an individual can be articled he must present satisfactory character recommendations. At the end of this time he is required to write an examination. If he be successful, he may be admitted to the bar by being proposed to a judge of the supreme court by a practising lawyer. He must be 23 years of age before he can be admitted. These are the only methods by which an individual may now become a lawyer.

The training thus obtained may be turned to excellent account in securing employment in banking institutions, in the civil service, and in trust, insurance and loan companies. All great corporations require the services of legally trained men.

Earnings. The young lawyer, during his period of articling, may be paid $10 to $15 a week. In one's own office, earnings depend upon individual ability and initiative.

The salaries of wage-earners vary from $100 to $500 per month. Salaries are affected by the "Tariff of Fees and Disbursements" enforced by the Legal Profession Act and the Law Society. There are many social demands upon men in this profession, e.g., from churches and from service clubs. This means that the lawyer is expected to take his place as an active member of the community.

Members of the legal profession may be required to draw up legal documents, investigate the facts of a case in order to advise a client, or plead a client's case in court. A lawyer may become a partner of a law firm, an employee in law offices or in trust and insurance companies, or he may establish an office of his own. In this latter case he must have a good business knowledge, so that he may conduct his business in an efficient manner. At present the supply of lawyers is greatly exceeded by the demand. Specialists in civil, criminal, estate or company law are needed only in the larger cities. Opportunities are greatest in the more thickly settled districts of the East, and are very limited in Alberta. Success is largely a matter of individual ability.

Other Features. Employees have fairly regular hours but the individual practitioner or member of a firm may be required to work at any time and for long hours. Employees observe public holidays and are given two weeks' annual holiday with pay.

The Professional Society does not attempt to prevent over crowding or to uphold the rights of an employee in case of a dispute with the employer. There is no compulsory retiring age for members of this profession, nor any pension scheme. Employees' salaries usually continue during illness for an unspecified period of time.

Satisfaction in the work arises from the feeling that one is performing a duty to society by settling disputes, directing business organizations in an efficient manner, and giving service to court, crown and client. A lawyer may, then, be termed a social engineer. In general, members of this profession are highly regarded by society.

Members of the legal profession can expect to have congenial associates with brilliant and cultured minds. The country practitioner is frequently required to do considerable travelling, but such is not the case for lawyers in urban centres. Lawyers enjoy complete freedom in their social, political and religious activities. A judgeship deprives a lawyer of his political privileges. The work may be found to be hard on the health and nerves because of its indoor nature and consequent lack of sufficient exercise.

What of the future? New fields seem to be continually developing, as for instance the need for administrative boards for the Workmen's Compensation Act and the Debt Adjustment Act. In the near future, State Medicine Acts, Pension Acts, etc., may require the services of lawyers. In this respect the legal profession seems to be an enlarging field.

Household Economics Vocations

In a broad way preparation for these vocations includes a theoretical and practical study of food, clothing and shelter viewed from the standpoint of health, economics and art, and a study of the relations of the members of a family to each other and to society. Training in home economics offers a very wide range of occupational opportunities. The field of opportunities has greatly increased in the last few years because of the recent changes in relationships between home and community. The vocations are built up around activities in which women are particularly interested. Specialists who have had this training are needed in hospitals, by magazines, and manufacturers of food supplies. Many of these openings are unrecognized because they are, so to speak, behind the scenes. We propose to outline some of the vocational opportunities that are open to girls with train-

Home Economics Laboratory.

ing in home economics and to deal in detail with two of these branches.

Opportunities. Home economic students may specialize in foods, in clothing and textiles, economic problems of the family, social and economic functions of the family, child training and psychology, and laboratory work in hospitals. On the food side there are the following divisions:

(1) Teaching in universities, agricultural colleges, public and high schools.

(2) Research work in chemical laboratories or commercial organizations.

(3) Dietetics in hospitals, hotels, cafeterias, clubs, camps, or industrial firms.

(4) Nutrition—in conjunction with settlement centres, public health departments and the Red Cross.

(5) Commercial work—food work in stores and restaurants.

(6) Assistant or housekeeper in a private home.

(7) Business—demonstrator, saleslady or counsellor.

(8) Journalism—magazines, newspapers and advertising.

(9) Commercial work — radio, lighting, demonstrating.

(10) In social service work.

(11) Extension work.

Occupations for clothing and textile specialists include:

(1) Teaching.

(2) Selling in retail clothing store.

(3) Shopping service. (See Personal Shopper, p. 245.)

(4) Research on textiles.

(5) Fabric and clothes designing.

(6) Extension work.

Training. Teaching household economics. Any person desirous of teaching household economics must obtain senior matriculation, then complete three years of university education leading to a degree in household economics, and finally take Normal School training or spend a year in the School of Education. The same qualifications may be obtained by graduating from one of the Provincial Schools of Agriculture and then completing university and the year of professional training. Teachers must have genuine sympathy and liking for girls. They must like manual work and home activities. They must be neat, punctual, sincere, persevering, and have a keen interest in detail. They should have good health, nerves and eyes. They need some artistic ability, and manual dexterity. It is advisable to enter the profession soon after one becomes 21 years of age.

At the university, studies include such subjects as organic and inorganic chemistry, physics, biology, foods, food preparation, sewing, household management, home nursing, clothing, art and design. This training may be obtained at the University of Alberta. Grade XII graduates who have an average of 65% or over on their grade XII work, or graduates of a provincial agricultural school may be admitted to the course. The professional training may also be obtained in the School of Education at Edmonton. Young women who have had this training are also prepared to enter any of the other branches of home economics outlined above.

Earnings. Teachers of home economics might be paid initially from $800 to $1,200 a year, and experienced teachers might receive as high as $3,000. At the present time there is not a regular rate of increase of salary for Alberta teachers.

Teachers are required to instruct concerning foods and nutrition, planning, cooking and serving meals, the care and feeding of infants and children, family relationships, home nursing for the sick and aged, art and costume design, clothing, clothing construction and home furnishing and management. In larger schools the work would probably be departmentalized, so that each teacher would teach only a few of the above subjects. Besides work in the classroom, the teacher might be expected to help at fairs, judge exhibits, supervise and teach girls' clubs.

The supply is somewhat limited in Alberta at the present time. This is due to the recent increase in demand for these teachers for new intermediate and high school courses. There are few graduate home economics teachers unemployed. This is a growing field. More and more schools, stores and hospitals are engaging graduates with this training. Applications for employment as teachers should be sent to superintendents or secretaries of school boards. The great advantage of this course is that it fits a girl to earn her own living and also to make a success in her own home.

Other Features. The hours of work are the same as for other teachers. (See the section dealing with Teaching, page 276.) The teacher has fairly short hours of work and so has ample time to enjoy stimulating pursuits and for self-improvement within her profession. These teachers feel that they are contributing to society by stimulating the interest of girls in good home-making, and by giving them some skill in home-making activities. The work should not be monotonous, and there are plenty of chances for using one's initiative and originality. Teaching may have some ill effects on health and nerves, but the extent of this depends on the individual. There is probably less effect on the teacher of home economics because the teaching is done in more natural conditions.

Hospital Dietitian

Qualifications. A dietitian must have poise, self-confidence, adaptability, and willingness to co-operate. She must be able to accept great responsibility and have emotional control. She must be tactful, forceful, enthusiastic, cheerful and capable of making accurate decisions. She will be in need of a sense of humor and must have a sincere understanding of and liking for people. She must have a reasonably attractive personal appearance, and be neat and correct in dress. She will need good health and posture. She must have the ability to organize, to express herself well, and to meet the public. She should enter the vocation soon after she becomes 22 years of age.

Training. She must complete senior matriculation, obtain a degree in household economics from a university

A Diet Kitchen.

and then take one year of diatetic interneship in an approved hospital. Some post-graduate work would also be very valuable. The amount of academic training necessary for this profession tends to restrict the number entering the occupation. Calendars giving complete information as to courses and expenses, may be obtained from the University of Alberta. During the interneship the dietitian is required to work 9 hours a day, with one day off each week. She is given her board and room and laundry and two weeks' vacation. This training is very valuable for finding employment in many of the other fields already outlined above.

Earnings. Inexperienced girls might be paid $75 a month and maintenance when they start work. Salaries in some of the larger hospitals in the United States might be as high as $350 a month. The average salary paid in Alberta is about $100 and maintenance. There is not usually any definite rate of increase of salary.

Duties. The hospital dietitian may be: (1) an administrator; (2) a therapeutic; or (3) a teaching dietitian, teaching nurses, medical internes, doctors or patients, or she may do more than one type of work. In the better positions the work is more supervisory in nature. With each succeeding year the opportunities are increasing in the field of household economics, but are dependent on the economic status of the community and the increased publicity being given this comparatively new and rapidly broadening profession. The greatest opportunities are to be found in Eastern Canada and the United States.

Other Features. Dietitians are required to work eight hours a day for six days a week, the hours being fairly regular. They are given an annual holiday of about one month with pay. The chances of obtaining advancement are good, provided that the individual is ambitious, has ability and health and is willing to work. The American Dietetic Association and the Canadian Dietetic Association tend to keep standards on a high plane, and so in some measure regulate the number entering the profession.

There is no retiring age nor any pension scheme for dietitians. Salaries are usually paid for one month in case sickness forces these workers to be absent from work.

Young women engaged in this occupation have opportunities of meeting educated, enterprising, interesting and cultured people. They are usually situated in larger centres, with all the opportunities offered by such an environment. There is much personal satisfaction to be gained from this work, which definitely offers a valuable service to patients and the community at large. As a result dietitians are given a high social recognition. The work is not monotonous and offers good scope for originality and initiative. There are plenty of opportunities for self-improvement within the profession. No restrictions are placed on the social, political or religious activities of dietitians. Success can be obtained only by very healthy persons, so that they must learn to guard their health and nerves in the most intelligent manner possible.

These, then, are only two of the many occupations open to young women who have been trained in home economics. Students should obtain information about the branch of the work in which they are particularly interested by talking to some one who is engaged in that work.

Extension work in Household Economics is given in classes to persons in their own districts. Such courses are food and nutrition, clothing, interior decorating, handicrafts, family economics and family relationships, home nursing, and household management. Permanent work of this nature is carried on to a limited extent through the Provincial Schools of Agriculture and the Boys' and Girls' Camps which are sponsored by the Dominion-Provincial Governments in co-operation with certain fair work.

In addition the Dominion-Provincial Youth Training Program is carrying on temporary extension work in all of the above subjects at the present time. It is hoped that this work will fill such a need that it will become permanent.

Agricultural Professionals

Qualifications. Agricultural professionals are largely recruited from university graduates. There are many different types of work performed by these men, and as a result many different types of personalities may be successful in this vocation. Roughly we might say that the individuals who desire to enter such branches as ex-

Seed Testing, University of Alberta.

tension and teaching should have engaging personalities and the ability to meet people. They must be diplomatic and have good judgment. Investigation workers should be creative thinkers and men who have good training in mathematics, languages, and the scientific method. The more advanced positions require a high order of executive ability. Many agricultural professionals are expected to give lectures and talks on the subjects in which they have specialized. Some men are called on to give technical advice and expert evidence. The duties in many of the branches vary with the season.

Opportunities. As a rule graduates have been finding it fairly easy to obtain employment, although the last few years have been offering some difficulties. Practically all of the 1937 graduating class of the University of Alberta have been placed. Another fact worth noting is that undergraduates and graduates who are planning on taking post-graduate work are usually able to find work for the summer months, especially on the university farms, and in survey work. The evidence seems to be that there are very few graduates who are receiving less than $1,200 within a year after graduation, and that the majority are soon earning between $1,200 and $2,800. Salaries depend to a great extent upon the branch of the service in which the individual is engaged. Civil servants receive regular increases of salary until they reach their maximum. During the depression it was somewhat more difficult to obtain positions because governments were reducing staffs. However this situation seems to be passing, especially in Eastern Canada. Specialists are needed in many branches of the work, such as in entomology, plant pathology, dairying, plant breeding, irrigation, horticulture, animal diseases and marketing.

Hours. The length of the working day varies greatly from one branch of the work to another. District agriculturists and extension workers have very irregular hours. They are, like doctors, "on call" all the time. Most men are given public holidays. Salaried men in the civil service usually have a period of 21 days for their annual holidays. Commercial firms vary in their practice with respect to annual vacations.

Most individuals have plenty of time for following some hobby or other stimulating pursuit or for self-improvement within the profession. Many employees are required to follow a fairly rigid routine, but some have opportunities for expressing their originality and initiative, especially in small ways. The work of such men as inspectors and graders is largely routine. Some men are required to do considerable travelling and to be absent from home for long periods of time. Civil servants and lecturers at the university are somewhat restricted in their political activities but enjoy complete freedom in their religious life. Some branches of the work are very trying to the nerves and somewhat detrimental to the health, but this depends mainly on the individual.

Training. And now what training is required of these workers and where may they find employment?

(1) Both the Dominion and Provincial Governments require men for their Departments of Agriculture. Most of these men are university graduates. All veterinarians are graduates, possibly of veterinary colleges. This department requires graders and judges of livestock, statisticians, experts in marketing and in crop estimation. Some men are engaged in strictly administrative capacities. Inspectors, such as fruit and egg inspectors, are employed by the Dominion Government. Inspectors are required for the administration of certain acts. Such men are employed by the Seed Branch of the Dominion Government. Inspectors are also required to examine imported material for insects and diseases. Such men are university graduates. The Soldiers' Settlement Board has a few university graduates among its personnel. All agricultural commodities sold under grade must be inspected. Only university graduates can expect to obtain much promotion.

(2) Teachers are required for the agricultural colleges and universities.

(3) Experimental farms, such as those at Lacombe and Lethbridge, require the services of men trained in research work.

(4) Such commercial firms as meat packers, implement companies and railways, require the services of agricultural professionals. Agricultural editors are required by newspapers and journals.

The University of Alberta offers general courses in agriculture and also courses in plant and animal sciences and in such special lines as dairying, cheese-making, entomology and plant pathology.

This is an occupation which is definitely in a state of growth. While agriculture as an occupation is very old there are many new branches, such as marketing and plant pathology. Up to the present the greatest opportunities have been found in the East. As a rule, however, men from the West do not transfer to the East because of the differences in agriculture.

Application for employment may be sent to:

(1) The Civil Service Commissioner at Ottawa. The commission maintains an "eligible list," based in some departments on success in examinations. The examination for university graduates is oral for personality impression.

(2) The deputy ministers in the provincial governments, or the Dairy Commissioner, or Livestock Commissioner.

(3) Superintendents of experimental farms.

(4) Managers of commercial firms.

Other Features. Advancement, especially in the civil service, is based upon merit, although seniority is considered. Changes in the Dominion Government do not usually have any effect on the position. Retirement at 65 years of age with a pension applies to male members of the civil service, employees of railways and such institutions as universities and colleges. Some professionals can take out group insurance against sickness, accident and death.

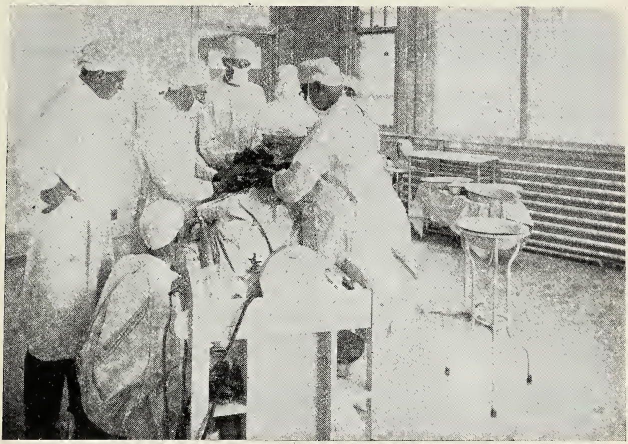
The Canadian Society of Technical Agriculturists, with some 1,100 members, is open to agricultural professionals. This society is primarily interested in publishing educational and research work. It does not concern itself with relations between employee and employer, nor in regulating the number entering the field. It does interest itself in attempting to find employment for its members.

At present probably less than one half of the university graduates go back to actual farming. The university is particularly interested, however, in increasing the number of graduates who do return to the farms. One difficulty, of course, in the way of attainment of this desire is that very few of the graduates have the capital necessary to start farming.

CHAPTER XII

PROFESSIONAL SERVICE (Continued)

MEDICAL OCCUPATIONS



This chapter deals with a few of the occupations of the medical profession. Students are advised as they read the description of each profession, to refer to Tables LXVI and LXVII at the beginning of Chapter XI.

Almost all these professions require many years of study and a large expenditure of money in order to obtain the necessary training. They all offer opportunities of helping the other members of society, and many require one to deal with unpleasant features of the human organism. Success depends on the individual, so students should carefully consider their qualifications before entering any of these professions.

Medicine

Several reasons have been advanced by young men and women when asked why they have chosen medicine for their vocation. These reasons include:

(1) Idealism or a desire to help suffering humanity.

(2) Medicine is thought of as being a good commercial venture.

(3) The desire to follow the profession because one's father or relative was in it.

(4) The desire to do research work.

It is claimed that at present too many are entering the profession for the second reason, whereas the first should be the main motivating factor. If medicine is to retain its idealism and its high status as a profession it must not be considered a commercial venture. No one should enter medicine unless he has a better reason than the third.

Special Considerations. Who should study medicine?

(1) Only those individuals who have a sound moral background.

(2) Only those who have good physical health.

(3) Only those who are willing to study hard for 6 long years at a university and *who will continue to be students throughout their life.*

(4) Only those who are even more determined to succeed after they have been warned of the long years of work ahead of them, of the large expenses necessary to complete the course, of the possible lean years after graduation, of the depressing feeling which comes from daily contact with suffering humanity and of the short

average life of the doctor. This latter fact is due to the constant strain of work during long irregular hours, and of working night and day with only short and broken rests.

As compensating features it may be said that there is no profession which brings greater recognition from society. As only a small percentage of doctors are employees of institutions, income depends on size of practice and ability to collect fees. Financial well-being, then, is a matter of individual initiative, personality and ability. A few positions offering regular monthly remuneration are available. It also seems that this will be even more true in the future. It is quite possible that there will be an increasing number of graduates engaged by provincial health authorities, for it is anticipated that there will be some form of health insurance for those of less than moderate means. This is being anticipated for two reasons:

(1) All citizens are entitled to the benefits of modern diagnosis and treatment.

(2) The members of the medical profession must be compensated for their care of the poor.

Since the health of a nation is its greatest asset, everything possible must be done to maintain it. It is likely that more hospitals will be organized in the smaller towns, thus giving better services to the sick and suffering of these districts and also permitting young graduates to work under the guidance of experienced doctors.

Number of Doctors. There were 583 physicians and surgeons in Alberta in 1931, or a population of 1,255 persons per doctor. In Canada there were 1,034 persons per doctor. There are very great differences in the population per doctor in urban and rural areas. The population per doctor in Edmonton and Calgary was only one third of the population per doctor in rural areas. The recent tendency has been toward a reduction in the proportion of doctors in the Canadian and Albertan populations. It would seem, however, that the supply is adequate but poorly distributed. It is likely, though, that if everyone could visit doctor for routine examinations as well as for specific reasons of ill health the supply might be inadequate. The economic factor, then, has some influence on the relation between supply and demand.

Training. The prospective medical student should take his high school work seriously. He must obtain senior matriculation and then attend university. He must have good physical development and a sound constitution. He should be optimistic, sympathetic and unselfish. He should have a high sense of duty and a keen sense of humor. He needs a good memory and excellent powers of observation. Any physical deformities would make success as a general practitioner difficult, but men with such handicaps might do research work.

The first year of the medical course aims at giving a general scientific foundation. Anatomy, bacteriology, physiology and biochemistry form the nucleus of the work for the second and third years. In the fourth year the medical student comes in contact with surgical and medical treatment of actual cases. Still more emphasis is given to the practical aspects of the work in the fifth year. In the sixth, the final year, the medical student works as an interne in a city hospital.

Other Features. All doctors are required to belong to the Alberta Medical Association. This organization does not interest itself in the matter of remuneration, but has considerable influence in determining what qualifications and training shall be demanded of medical men.

There is likely to be considerable nervous strain resulting from the work and it may have its effect on an individual who is not emotionally stable and able to stand the work. Naturally the medical doctor receives a great deal of inner satisfaction from feeling that he is helping to keep his fellow men in good health by curing and preventing diseases. Some doctors are required to do a great deal of travelling, especially those who are located in rural areas.

Specialization. There seems to be a tendency for medical men to specialize in certain branches of the work, but Alberta needs both specialists and general practitioners. Practically all specialists are located in the larger centres. Special fields include: surgery; internal medicine; pediatrics or the diseases of children; neurology, a study of the diseases of the nervous system; and eye, ear, nose and throat. It is estimated that only 18% of human ailments require treatment by specialists, and that nearly 50% of medical graduates plan to specialize.[1] It should be noted that once a man is a medical doctor he can not readily turn to any other occupation because of the fact that his education has been extremely specialized.

In conclusion one should remember the many difficulties besetting a successful career in medicine. Remember the many long years of hard study at high school and university, and the need of remaining always a student. Remember that incomes are not as high among medical men as they are among many other professional and business men. Remember the difficulty of collecting fees. Consider the nature of the work the doctor is required to do. Remember the long irregular hours, and the miles of driving on muddy and almost impassable roads that will be required of many medical men. But remember, too, the possibilities of service to one's fellow men.

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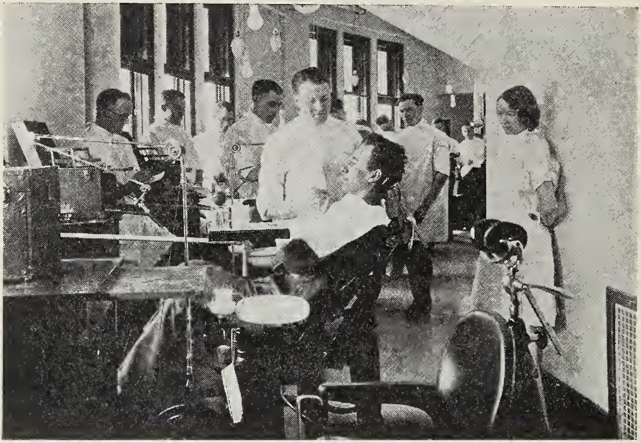
[1] Williamson: "Students and Occupations."

Dentistry



Dental Clinic, University of Alberta

Number of Dentists. In Alberta in 1931, there was only 1 dentist for every 3,167 persons. Only 3 provinces had a smaller proportion of dentists. The population per dentist in Canada was 2,567. The most pronounced drop in registration in any university faculty in recent years has been in dentistry. The annual number of graduates in the 1930's has not been half of what it was in the 1920's. In order to maintain even the present proportion of dentists there will need to be a pronounced increase in the number of dental graduates. However, this condition seems to be passing. The University of Alberta has found it necessary to limit the class in first year dentistry to 15 students.

Is the present supply of dentists adequate, or is the field overcrowded? It has been estimated by a United States survey that on the average a dentist treats 430 different patients per year.[1] Now there were 231 dentists in Alberta in 1931, so that if Alberta dentists treat about the same number of patients as do American dentists then less than 100,000 different patients received dental treatment in that year. This means that only about 1 person in 7 received any dental care in 1931. It would seem, then, that not enough attention is being given to the teeth. Does this mean that we have an undersupply of dentists? In the light of the present economic condition of the country there is not an oversupply, for those persons who are not having their teeth attended to can not afford to go to a dentist. If every individual who needed it could have dental care, then no doubt Alberta would be faced with the problem of an undersupply of dentists.

Training. A student who is thinking of entering this profession must complete senior matriculation, take first year arts and then 4 years of professional training. An average of 65% on all subjects is required of dental students before they may proceed to the next year's work. Many young men are taking the combined course leading to a B.A. or a B.Sc. along with the D.D.S. course. This, of course, requires that the student spend more years at university but it gives him a cultural background along with his dental skill and knowledge.

Qualifications. The successful dentist must have good eyesight, steady nerves and good manual dexterity. He must be a creative artist and so must have originality and ingenuity because every filling, crown or bridge is different from any previous work. The dentist must be capable of taking great pains with his work, for a poor job may have resulting ill effects on the patient. He must have a neat appearance, a pleasing personality and the ability to inspire confidence in his patients. It would thus appear that the dentist must be able to deal with persons, ideas and things. Physical deformities would prove a serious handicap to a successful career as a dentist.

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[1] Williamson: "Students and Occupations."

The dentist is required to study such subjects as chemistry, physics, zoology, anatomy, physiology, bacteriology and pathology. His knowledge of these medical subjects is necessary because of the fact that many of his patients are in ill health, with the result that the dentist should co-operate closely with the medical man. Formerly the teeth were looked upon as separate entities of the body. Now we know that much ill health is caused by decayed teeth and so the dentist must know what may be the result of defective teeth. He must also know what may be the result of the wrong treatment of decayed teeth and hence needs a medical background.

Earnings. It is very difficult to give any information about the range of incomes found among dentists. Most dentists have their own practices and so their incomes will depend upon their ability to attract and retain patients by doing good work. These men frequently experience considerable difficulty in collecting their fees, but they seem to have less difficulty in this matter than do medical doctors. Some dentists obtain salaried positions in hospitals, universities, public health service or in school systems. The professional society is particularly interested in seeing that all practising dentists are licensed, and that these dentists conform to the professional code. The larger incomes among dentists are found among specialists. However, there is not, as yet, a very large demand for specialists in Alberta. General practice serves the needs of most of the dentists' patients.

There are 4 main branches of specialization, as indicated below:

(1) Orthodontia—the correction of irregularities of the teeth.

(2) Periodontia—the treatment of pyorrhea and other diseased conditions of the tissue near the teeth.

(3) Children's dentistry. This is an excellent field for women who have a personality which is attractive to children.

(4) Oral surgery—the extraction of teeth, and surgery on mouth and jaws.

Naturally the demand for specialists is greater in the larger centres.

Hours. The dentist has somewhat easier hours than the physician and surgeon. As a rule he has regular office hours, but will usually work at other times if circumstances require it. Since practically all dentists are workers on their own account the question of work outside of regular hours is a matter of individual choice. Most dentists take a holiday each year, and observe all public holidays.

Success as a dentist depends entirely upon individual ability, initiative and personality. All dentists are required to be members of the Alberta Dental Association. Dentists are not required to leave the profession at any fixed age. Annuities and insurance are matters of individual concern.

Other Features. The dentist's work is now recognized as essential for the health of citizens with the result that he is given an excellent social standing. Dentists have a good deal of leisure time which they may use for stimulating pursuits and for self-development within their profession. They get a great deal of inner satisfaction from feeling that they are contributing to the general health and well-being of the members of the community.

Dentists should not feel any monotony from the work, for almost every new patient presents a new problem, thus requiring the exercise of ingenuity and initiative. Neither travelling nor absences from home are required of dentists. They have complete freedom with respect to their social, political and religious privileges. The work frequently has some ill effects on the nerves, because ot the strain of carrying on a delicate type of work which affects the nerves of the patient. To offset the long hours of indoor work dentists have ample opportunity for indulging in outdoor sports.

Dental Nurses. There is a school of dental nurses at Toronto which prepares young women to become dental assistants. As yet there is not much demand for these nurses in Alberta, but it is likely that there will be in the future. Such training also prepares one for clinical work. The course requires about 8 months of training.

Dental Mechanics

Closely associated with the dentist is the dental mechanic. While his work is not termed professional, it is included here because of its relationship to the work of the dentist.

The dental mechanic is required to make dental plates, dental restorations, dentures, bridge-work, crowns and inlays. He is required to deal directly with the dentist.

Qualifications. He must be patient and persevering, and have the ability to pay strict attention to details. He must have good eyesight and a steady hand. High school education is advisable but not necessary for dental mechanics.

Training. It is possible to start in this occupation as an errand boy, who is given the opportunity of helping in the rougher types of work. By this method one may develop into an expert mechanic. A would-be mechanic should, then, get started in the occupation as early as possible, preferably soon after he is 15 years of age. It is generally estimated that about 5 years' training under an expert mechanic is necessary before one can be considered to have obtained a fair knowledge of the work. In some larger laboratories learners are kept on one type of work, with the result that they develop into specialists. The larger cities usually have laboratories in which training may be obtained. Calgary and Edmonton each have from 4 to 6 laboratories. This is specialist's work, with the result that in case of unemployment it is very difficult to find other work of a similar nature.

Apprentices in dental laboratories start at from $8 to $10 per week and gradually advance to about $20 a week during the last year of apprenticeship. During this period they learn plate work, finishing and vulcanite and gold work in the branches mentioned above. Good mechanics are usually paid between $20 and $40 a week.

Openings. This is a limited field, so that after training, the student generally remains with the laboratory or opens his own shop. Some mechanics later attend university to become dentists. Others find employment in dental supply houses. There were about 20 men engaged as dental mechanics in Alberta in 1931. In times of depression many dentists do their own work, thus reducing the demand for mechanics.

Other Features. The larger shops have specialists in most, if not all, of the branches of the work. However, such laboratories are few in Alberta, with the result that the mechanic is usually required to do several types of work. Mechanics are required to work 5½ days a week, from 9 a.m. to 12 noon and from 1 p.m. to 6 p.m. They are usually paid at the rate of time and a half for overtime work. Public holidays are observed and many employees are given 2 weeks' annual vacation with pay. There are no dental mechanics' unions in Western Canada. There is no compulsory retiring age, nor is there a pension plan. Wages may continue during an absence from work caused by sickness or accident.

While much of the work is routine in nature, the mechanic may exercise his initiative and originality in methods and techniques. He has complete freedom with respect to his political, religious and social activities. The work is sedentary in nature but the health and nerves of the mechanic should suffer no ill effects if he keeps fit by out-of-door exercises.

Nursing

Out of a total of 427 girls who were questioned as to what they would like to do for their life work, 120 chose the profession of nursing. This was, indeed, the most popular choice among the girls questioned. In view of this fact a girl should ask herself if she is fitted for the work, if she thinks she would like it and if she can stand the work she will be required to do as a nurse.

Qualifications. A nurse must have dignity and poise, a pleasing manner and appearance, patience and tact. She must be sympathetic, reliable, resourceful and cheerful. She must have a strong, healthy body and *good feet.* Physical deformities, skin diseases, or speech defects are serious handicaps. Good eyesight and hearing are absolutely necessary. A nurse must realize that in the course of her work she will be required to give aid to

doctors and other nurses, and in so doing will be forced to be in contact with human beings who are suffering from many diseases, accidents and sicknesses. She must have the ability to meet, understand and love other persons. A nurse is required to enter the profession before she is 30 years of age, but may not enter it before she is 18.

Many hospitals now require applicants to have grade XII education, although there are a few that will still accept grade XI graduates. Many nurses have also had business courses, normal school training, university education in household economics or a general university training for a cultural background. In fact it is generally agreed in nursing education that the person with 1 or 2 years of experience is better prepared for the work than the girl entering nursing immediately after grade XII. Some girls take a university course leading to a B.Sc. in nursing.

Training. Training, which is obtained in general hospitals of recognized standing, requires 3 years. This period includes 1 year of practical nursing and shorter terms of approximately 3 months each in such departments as medical, surgical, children's, maternity, communicable diseases, dietetics, operating room and outpatients. The first 3 to 6 months is a period of probation, after which the probationer may be accepted for the rest of the training period or rejected as unsuited to the nursing profession, although a nurse-in-training might be asked to leave at any time during her training period. *Besides the practical work, there are class periods in various medical subjects and on the principles of nursing.*

The initial cost is about $40 for uniforms. Nurses-in-training in certain institutions are given a small monthly allowance, varying from $5 to $10 a month, depending upon the year of training. From this amount may be deducted an insurance premium and student organization fees, if there is such an organization in the hospital. Any further uniforms required by the nurse-in-training are supplied by the hospital.

This training is very valuable for a person seeking employment as an assistant to a doctor or dentist, in industrial nursing, as an air stewardess, in the Red Cross, foreign mission work or social service work.

Branches of Nursing. Roughly nursing may be classified as institutional, private duty and public health nursing.

The duties and work of nurses may be dealt with under this classification. Institutional nursing includes bedside nursing, supervision, administration, instruction, surgical nursing, X-ray work, nursing in maternity hospitals, in connection with psychiatry and nervous disorders, with tubercular patients and patients with infectious diseases and troubles with eye, ear, nose and throat. Public health nursing includes clinical and educational nursing, social service work, school nursing, teaching, supervision, administration, bed-side and industrial nursing and nursing in sanatoriums. Private duty nurses are required for bed-side nursing, the care of children, and, in some cases, for household management. The more advanced positions require nurses to have executive, instructional or supervisory ability and extra preparation.

Some of the fields which require the services of qualified nurses have already been indicated. The supply for hospital work and for private duty work is barely adequate in Alberta at the present time. It is urged, too, that there is a demand for nurses who have trained for teaching, supervision, administration and public health work. Opportunities are greatest in the more thickly populated centres and in mining and industrial districts.

Openings. To whom may application for employment be made? For institutional work application should be made to the superintendent of the hospital which the nurse desires to enter. For employment after graduation in public health work, application may be made to the following: (1) Superintendent of Public Health Nurses, Department of Health, Edmonton; (2) Secretary of school board for school nursing; (3) Superintendent of Victorian Order of Nurses; (4) Industrial manager of industrial plant; and (5) President or secretary of social service agencies. Private duty work may be obtained by registering with the Nurses' Registry of a city, or through consultation with practising physicians and superintendents of hospitals.

Hours. Institutional nurses work about 7 days a week for from 8 to 10 hours a day, with one-half day off each week. It is hoped that Alberta nurses will soon have an 8-hour day, with 1 day a week off duty. As graduates, nurses may receive from $60 to $75 a month and maintenance. They do not usually observe public holidays, but instead are given extra hours off duty. They are given from 2 to 4 weeks' annual holiday with pay. Advancement depends upon ability and experience.

Public health nurses work 6 days a week for 8 hours a day. They are paid from $85 to $125 a month and are given public holidays and from 2 to 4 weeks' annual vacation with pay.

Private duty nurses may be required to work 7 days a week for varying lengths of time each day. They are paid at the rate of $5 a day. The Association of Registered Nurses has had some effect on the fees of private duty nurses, and is trying to obtain an 8-hour day for Alberta nurses.

Other Features. Some nurses are able to obtain group insurance and are granted reduced fees for any hospital service they may require. Salaries may continue for varying lengths of time during an illness.

Great inner satisfaction results from engaging in this work because a nurse feels that she is engaged in rendering a service to an individual who is in need of special care, and that she is engaged in preventative and curative work which adds to the happiness and well-being of the community as a whole.

There is much repetition in the work but there is also much room for initiative and originality and for self-improvement within the profession. The work is very trying to the health and nerves, but a nurse who has a sane outlook on life is usually happy and healthy.

Pharmacy

Training. In order to become a licensed druggist it is necessary for a student to finish 4 years of high school education and then serve an apprenticeship. The University offers 2 courses for druggists, namely, the Licentiate course and the Diploma course. Students who are planning to take the licentiate course must serve 2 years' apprenticeship under a qualified druggist. They are then prepared to take two years of university training leading to the Licentiate diploma. If, however, they wish to take the degree course they must serve 1 year of apprenticeship and then complete 3 years of training at the University. Upon the successful completion of this course they would be granted a B.Sc. degree in pharmacy. For matriculation requirements for these courses see Appendix C, page 438.

Qualifications. A pleasing personality and the ability to meet the public are very essential for the druggist. He must be honest, accurate, reliable, clean, sober and professional. He should have good health and physique. Most individuals enter the apprenticeship between 18 and 21 years of age. Qualifications must be sent to the "Registrar, Alberta Pharmaceutical Association" before one is permitted to begin his apprenticeship. Remuneration during this period depends entirely upon the employer. Usually the apprentice is paid between $25 and $50 a month. He is required to work about 8 hours a day under the supervision of a fully qualified pharmacist.

The usual initial salary paid to graduates is about $80 a month. Salaries for experienced druggists usually average between $80 and $100 a month. Most employees work on a monthly salary basis although a combination of salary and commission may be used. There is no definite rate of increase of salaries for druggists.

The professional association has not had any effect upon salaries or in regulating the number of persons entering the occupation. It has not acted to uphold the rights of employees who might have a disagreement with the employer.

The Work. The druggist may be required to prepare compounds, distribute and dispense drugs and medicines, including narcotics and poisons; to furnish sick room supplies; to distribute insecticides and fungicides; and to furnish health information and service. All of this must be done on sound business principles. Many drug stores now include soda fountains, lunch counters, tobacco, candy and many other unrelated articles.

Druggists may become proprietors, managers, chemists or research workers. They may find employment in hospitals and in industrial laboratories engaged in research in medicine, drugs, cosmetics and vaccines. They may become salesmen and representatives of manufacturing and wholesale concerns. It is estimated that about 4% of pharmacists are women, engaged as clerks, in hospitals, laboratories and government services. In most branches the work is largely routine in nature but clerks enjoy an interesting variety of work because of the fact that they are continually meeting and dealing with customers. At present in Alberta the supply is approximately equal to the demand, with the result that very few qualified druggists are unemployed. There were 370 wage-earners in the occupation classified as "drugs and toiletries" in Alberta in 1931.

Application for employment may be made to: (1) the proprietor of a drug store; or (2) Inspector M. W. Fyffe, 11424, 95 A St., Edmonton.

Other Features. The working hours are fairly regular, and vary from 8 to 10 hours a day. Druggists are usually required to work 7 days a week. They may be given public holidays by arrangement between the employer and the employee. They are usually given 2 weeks' annual vacation with pay.

Changes in the management of a larger store may have some effect on the personnel of the store. There is no compulsory retiring age, nor is there a pension scheme. Druggists are not able to obtain group insurance. Wages usually continue during an absence from work, which has been caused by illness.

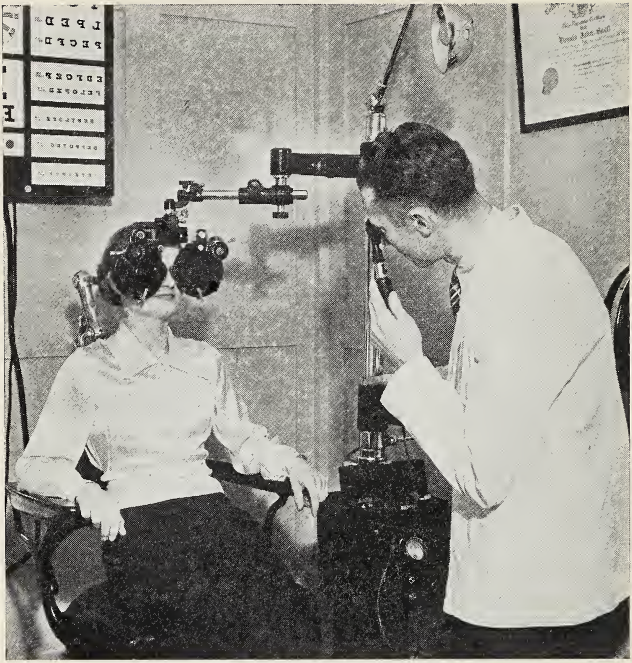
The work is socially important in that the pharmacist may be said to be the doctor's right hand man in safeguarding the health of the members of the community. For this reason the druggist is usually given high recognition by the other members of society. In much of the work the druggist has excellent opportunities for exercising his initiative and originality.

The members of this profession enjoy a large degree of freedom in their political, social and religious life. There may be a certain amount of strain on the health and nerves, especially if the individual is of a nervous disposition. There are excellent opportunities for self-development within the profession.

Optometry

Here is an occupation which offers, on the whole, clean, agreeable work and working conditions, although much of the day is spent under artificial light or in semi-darkness. It should be noted that general good health is decidedly advantageous for any one who desires to become an optometrist.

Duties. The duties of the optometrist must be distinguished from those of the oculist, who treats diseases of the eyes. The optometrist measures the errors of refraction of the eyes without the use of drugs, so that his duties include examining the eyes, diagnosing the



—*Courtesy of The T. Eaton Co., Western, Limited.*

OPTOMETRY IS A PROFESSION DEVOTED TO BETTER VISION.

trouble and prescribing glasses which will correct the vision. He must be able to recognize pathological conditions. He must be able to do the mechanical work necessary for the manufacture and fitting of glasses.

Qualifications. The optometrist must have the ability to inspire confidence, to meet patients with a real seriousness of purpose and to show an active interest in each case. It should be noted that most graduates from an optometry school tend to enter business for themselves, although some are employed by large firms and departmental stores. For most optometrists, then, success depends upon individual initiative and ability. It is very difficult to give any definite information as to the incomes of these men. The working hours are usually regular but optometrists may be required to meet patients after the usual office hours or on public holidays. On the whole opportunities seem to be rather good in this occupation. It is worth noting that this is a field which offers fine opportunities to women with an aptitude for the work and the ability to deal with women and children.

Training. Students who desire to become optometrists should finish senior matriculation and then take a course in optometry. This course is offered at the University of Toronto. Full details as to cost and courses may be obtained by writing to the Registrar of the above university. The College of Optometry at this university offers a two-year course leading to the degree of R.O. (Registered Optometrist). The annual cost of tuition, books and living expenses varies from approximately $800 to $1,000. The registration in 1936 was about double that of 1935. Some of the American universities which offer training for this profession are universities at New York (Columbia); Rochester, N.Y.; Berkeley, Cal.; Columbus, Ohio; and Chicago, Ill.

Students should stress: Latin, because of its relation to many of the technical terms; science for the value it offers in accurate measurement; physics for the study of light and electricity. Since many optometrists are proprietors of their own establishments it would also be wise for a student to have some training in bookkeeping and business management, such as may be obtained at commercial schools.

Other Features. This is a fairly new field which is in a healthy state of growth. The greatest opportunities are to be found in the larger centres. Young optometrists, as employees, might expect to receive about $100 a month for their services. The average salary given to a man with good training and experience is about $200 a month. Optometrists must join their Association which collects membership fees annually. This Association has not taken any steps to regulate the number entering the profession or the rate of payment of employees.

There might be some effects on the health and nerves of optometrists because of the indoor nature of the work. The great care and attention to detail that are necessary might affect the nerves. There is a good deal of inner satisfaction resulting from this work because the optometrist feels that he is contributing very essentially to the happiness of his fellow man.

Social Welfare Work

Social welfare work is based on the philosophy that it is the duty of governmental agencies to assist the citizens to secure equality and satisfaction, and economic security. From this one can well imagine that a great variety of duties is to be found among social service workers. Some are engaged in the care of neglected, dependent or delinquent children, that is, in child welfare work and in the handling of handicapped groups; others are engaged in family social work, that is, in helping parents and adults to manage their family affairs; some are in Y.M.C.A. and Y.W.C.A. work or are Campfire and Boy Scout workers; still others organize social, recreational and educational programs for people who could not otherwise have these social advantages. Some are engaged in medical welfare work and others in psychiatry.

Qualifications and Training. The educational requirements for these workers vary greatly because the work must be adapted to ever-changing conditions. However, any student who is desirous of entering social service work should complete senior matriculation. It is also true that university graduates are obtaining the more responsible positions. The prospective social service workers should pay particular attention to hygiene, economics, literature, composition, history, languages, psychology and sociology during high school and university training. The social service worker grapples with very deep problems of life and in so doing must be prepared to accept great responsibility.

She must pay very particular attention to her extra-curricular activities. Club work has 2 functions: it offers a test of one's fitness for the work and provides practice in dealing with others. If the student finds that she enjoys working with others, and particularly with those who have less attractive personalities, if she can secure their co-operation, if she is willing to exert herself in unselfish activities and is always cheerful and tactful, then she may be assured that she has some of the qualities most necessary for a social service worker. Further qualities and traits necessary include honesty, truthfulness, cheerfulness, friendliness and altruism. Most workers enter the work soon after they become 20 years of age.

In social service work a large part of the advantage possessed by the college graduate is due to the fact that in her college courses she had greater opportunities for social work. The high school girl who intends to work for the misfit, the runaway girl, the mentally deficient, the blind, the poor and the lonely can begin at once by taking an active part in the social work of the school. This worker must be versatile and active. Participation in glee clubs, orchestras, dramatics, public speaking, games, sewing, cooking and general organization will be of inestimable value in her career as a social service worker.

Recommendations as to personality, character, physical fitness and general education should be included with the application for employment. This application should be sent to the civil service commissioner, city commissioner, or the heads of social service institutions.

Specific training for the profession may be obtained at the New York School of Social Service, McGill University, Toronto University, the Universiy of British Columbia or at the Deaconess Training Schools at Toronto and Winnipeg. Information as to courses and expenses may be obtained by writing to these institutions. Good practical training may also be obtained by working in an institution under the guidance of an experienced social service worker. Training may be utilized in seeking employment in settlement work, public welfare work, in the civil service, in church work, and missions, on newspapers and in orphanages, and mental institutions.

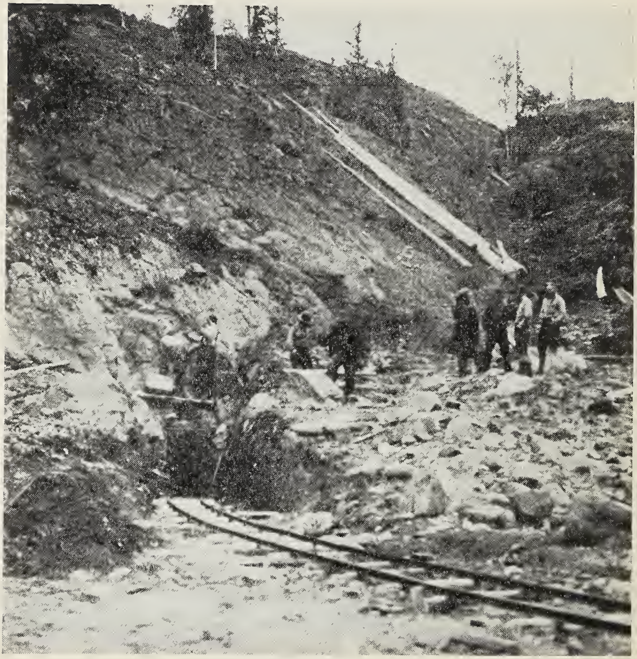
Other Features. The initial salary is frequently about $1,200 a year, and the average salary paid to experienced workers is about $3,000. The chances of obtaining employment are not very good in Alberta at present, but the same condition does not exist in British Columbia or in Eastern Canada. Advancement depends upon both ability and seniority. As a general rule the hours are irregular. Many employees are required to work 7 days a week. Public holidays may be observed. Social service workers are usually given from 2 to 4 weeks' annual vacation with pay. Civil service employees are retired at a certain age, with a pension. Women usually retire between 55 and 60 years of age and men between the ages of 60 and 65 years. Most employees continue to receive pay during sickness.

Great satisfaction is derived by these workers from the fact that they feel that they are helping society in a concrete and creative way. To those who are interested in human life and human problems this work is tremendously interesting and is work that does not necessarily become commonplace and monotonous. There are ever new developments in the profession, which means that the worker must be a student. To be successful one must be capable of imaginative sympathy, of projecting oneself into the life of another human being and seeing life through his eyes. Imagination and initiative of a high order are necessary along with the ability to analyze and comprehend the complex nature of human actions. A broad academic background and a wide experience are essential to ultimate success in this work. Only individuals of good emotional stability should enter this service, for they cannot help but undergo a good deal of vicarious suffering in the course of their work. These experiences will have their effects on the health and nerves of the workers unless they have the stability to carry on with their duties without being unduly affected by them.

CHAPTER XIII

PROFESSIONAL SERVICE (Continued)

ENGINEERING OCCUPATIONS



COMMENCEMENT OF THE TUNNEL, ELDORADO MINE, GREAT BEAR LAKE.

Engineering may be divided into several main types, and each type may again be divided. Each type also includes many different vocations. Any of the work, however, requires highly trained men. *Students who are successful in mathematics, physics and chemistry and who enjoy the content of these subjects may consider some one of the many occupations offered by professional engineering.*

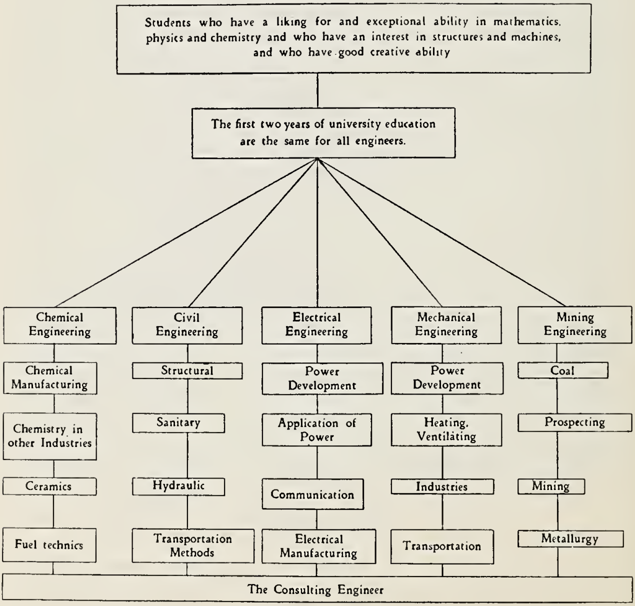
Each type of engineering may be roughly divided into: (1) the survey and collection of data; (2) designing; (3) construction; and (4) operation. This means that engineers make the preliminary surveys for, say, a power plant, plan and supervise its construction and finally take charge of its operations after it has been built.

Each of the 5 main branches of engineering are dealt with in this chapter, along with architecture and mechanical drafting. This latter is not, properly considered, a profession, but it is included in this chapter because of its close relationship to engineering practice. It should be noted that while all engineers are given practically the same fundamental training in mathematics, graphics and sciences, it is a fact that most engineers later specialize in one branch of the profession.

There is no compulsory retiring age for engineers, although it is conventional for them to retire at about 65 years of age. Many engineers are in the civil service and the remarks in chapter XVII dealing with the civil service apply to engineers in that service. This paragraph refers to engineers who are not in the civil service. Most engineers are not able to participate in a pension plan. They may take out group insurance through their professional society. Many mining engineers are able to obtain group insurance through the company for which they are working. Some engineers, especially certain mining engineers, are required to do considerable travelling and to spend much time away from home. The majority of engineers enjoy considerable freedom with respect to their social, political and religious activities. In most cases the work is very healthful, except possibly in the case of chemical engineers who are dealing with poisonous substances.

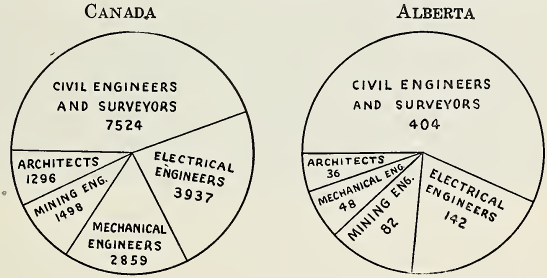
The following table indicates what students might consider a career in engineering, and some of the branches which they might enter. Many fields of engineering are indicated in the diagram which do not yet offer many opportunities for engineers in Alberta.

Who may think of entering the engineering professions?


Students who have a liking for and exceptional ability in mathematics, physics and chemistry and who have an interest in structures and machines, and who have good creative ability
The first two years of university education are the same for all engineers.
Chemical Engineering
Chemical Manufacturing
Chemistry in other Industries
Ceramics
Fuel technics
Civil Engineering
Structural
Sanitary
Hydraulic
Transportation Methods
Electrical Engineering
Power Development
Application of Power
Communication
Electrical Manufacturing
Mechanical Engineering
Power Development
Heating, Ventilating
Industries
Transportation
Mining Engineering
Coal
Prospecting
Mining
Metallurgy
The Consulting Engineer

The following graphs indicate the proportion of each type of engineer in Canada and in Alberta in 1931. Chemical engineers have not been included because the census report lists chemists, assayers and metallurgists and not chemical engineers. Note also that the group of civil engineers also includes surveyors.

The Number of Engineers in Canada and in Alberta in 1931



There have been between 600 and 700 graduates in Applied Science annually in Canada in recent years. The rate of increase in the number of engineers has been faster than the rate of increase in general population since the beginning of the century. General population increased 93% while the number of engineers increased 595% between 1901 and 1931. The percentage of engineers losing time in 1931 was high as compared with other professional men. However in spite of the greater amount of time lost, the average earnings of workers in the engineering profession were well above the average for all professionals.

Civil Engineering

Qualifications. Engineers engaged in research and design require scientific ability of a high order. An ana-

Surveyor's Camp, Lindsley, Great Bear Lake

lytical mind, initiative, good health, a desire to create, with which must be associated imagination and ingenuity, are some further qualities required of a young man who would be a successful civil engineer.

As in the other engineering occupations he must obtain senior matriculation and then take a four-year university course in applied science. The first two years of university education at the University of Alberta are fundamentally the same for all engineers. Specialization starts in the third year.

The Work. The engineer gets a very real satisfaction from *exercising his creative talents.* He sees his plan become a reality. He also gets a great deal of pleasure from feeling that he is adding to the convenience, comfort and welfare of his fellow men. In some branches of engineering most of the work is out of doors and so is very healthful. On the other hand the indoor work of other engineers may have some ill effects on their health, unless they take good care of themselves.

Civil engineers are required for planning bridges, highways, railroads, dams, tunnels and municipal utilities. There are several branches which a civil engineer may enter after he has received his early experience doing minor supervision work in the field or after spending several years in an office at a drafting table. Some of these are indicated below.

Branches of Civil Engineering

Structural Engineers. These engineers are engaged in planning and building all kinds of structures from bridges and buildings to power lines and dams. They may be required to work with all types of construction material, earth, brick, concrete, timber and stone.

Railway Engineers. The methods of handling railway transportation is the special work of these men.

Highway Engineers. Such men may be employed by municipalities, or by provincial, or federal governments to design, construct and maintain highways.

Sanitary Engineers. These engineers are concerned, along with medical officers, with the maintenance of public health. They may be required to design and construct apparatus for purifying, storing and distributing water and for disposal of sewage.

Hydraulic Engineers. The work of these men is concerned with the flow of water, control of rivers, location and construction of dams, reservoirs and canals, water power, irrigation and drainage.

In all the above branches the civil engineer is concerned with surveys, tests of materials, general plans and specifications, estimates and contracts, working drawings, orders, supervision, accounting and much other work.

There is, then, a great deal of variety to be found in a civil engineer's life.

Mining and Mining Engineers

Is this industry of sufficient importance and permanence to demand serious consideration? In 1935 the Canadian industry employed some 80,256 men, paying $100,000,000 a year in wages and salaries and had a total investment of nearly 800 million dollars and an output in the previous ten years of almost 2½ billion dollars. Canada was the third largest gold-producing country in the world, first in nickel, and has an important place in the production of copper, lead, zinc, silver, platinum and asbestos, and promises a substantial increase in its mineral production. (Canada Year Book, 1937.)

Branches of Mining Engineering. Mining falls into 4 main divisions:

(1) Exploration; that is, the prospecting for and discovery of mineral deposits. In Canada this is a seasonal occupation. In this work the engineer needs to have a good working knowledge of geology and mineralogy. He must be capable of looking after himself under many adverse conditions. This work, then, calls for good physique, courage and especially for optimism.

(2) Production. This branch requires men of somewhat different training and experience. The development of a mine involves underground work, sinking shafts, driving levels, opening up the ore body and equipping the property with plant, buildings and machinery. As developments become more extensive, the work becomes more technical, and as a result the requirements for supervisors in the larger mines are very exacting.

(3) Operation. This is continuous throughout the year. More and more technically-trained men are being

required. Mines vary in size from those requiring only 2 or 3 trained men to those employing several hundred. Underground mining work is hard, usually dirty, and calls for good physique and an absence of physical disabilities.

Those who want the city lights should stay away from mining. To those who like open spaces, who have a spirit of adventure, who are attracted by a pioneer life and who will not be discouraged by its hardships, mining offers a definite opportunity.

(4) Metallurgy deals with the treatment of the ore after it has been mined. The number of trained men required in a mill depends on the size of the mill, which may run from a mill of 50 tons capacity a day to one of 10,000 or more tons daily. Work is continuous for 365 days a year. These men should have a broad engineer-

Surface Work on a Silver Vein in the Great Bear Lake District.

ing training and specialization in chemistry and treatment of ores, and good ability in research. Working conditions for metallurgists are usually more attractive than conditions in the mines themselves.

There is no easy road to success, but there is plenty of hard work. Summer vacations of university students can be devoted to practical work and after graduation the young engineer must be prepared to get a job, starting near the bottom and thus supplement his college training with experience. The majority of men successful in attaining executive positions, which are more highly paid, come from students who had a good academic record and who have exhibited qualities of leadership in other activities as well.

Qualifications. Initiative and originality are characteristics which a student must have if he desires to advance to the more responsible positions open to men in this profession. He must be honest and reliable. He should have good health and a robust physique if he is to be able to live under the many exacting conditions demanded of the mining engineer. He must have the ability to command the respect of the men who are under his supervision.

Men formerly entered this profession by serving an apprenticeship, but the competition offered by university graduates is making it very difficult for any one to learn the work by this method. Hence students should complete senior matriculation and then take a university course leading to a B.Sc. degree in Mining Engineering or Metallurgy. Details as to courses and expenses are contained in university calendars.

This training will be of value in seeking employment in land surveying, civil engineering, coal and lode mining, and university teaching. Hence there are several branches of the profession which an engineer might enter. The graduate is at first usually required to do ordinary laboring work, in order that he may become acquainted with the needs and thoughts of the laborers over whom he will later have control.

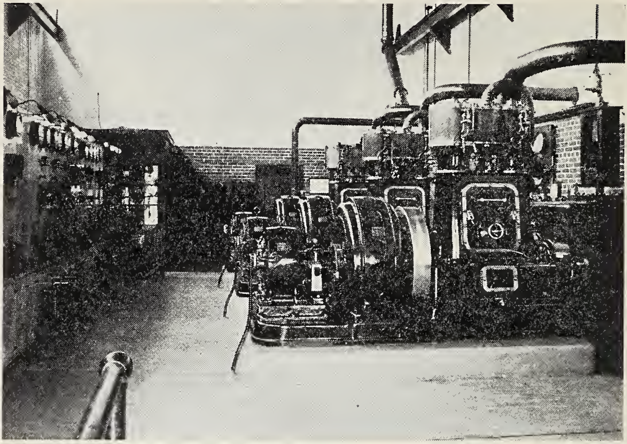
Many graduates start at about $100 a month. The average salary of an experienced man is about $150 a month and expenses. Some men are paid $4000 or $5000, and even more, annually. Remuneration is usually by salary, except in the case of the consultant who charges fees.

Professional societies have had no influence on wages, in regulating the number entering the profession or in upholding the rights of employees.

Different engineers deal in varying degrees with men, ideas and things. Engineers may be supervisors, assayers, or draftsmen. In a large firm a man may advance from a sampler underground to a supervisor of several phases of the work. Most graduates of the University of Alberta find employment in the mines in Alberta, B.C., N.W. Territories, or Ontario. Some become members of Geological parties organized by the Government. In the past practically all graduates of the University of Alberta have found employment soon after graduation. Many undergraduates are also able to find work in mines or on survey parties during the summer months and can thus help to pay their university expenses. Application for employment should be made to superintendents of mines or at the offices of the mine.

Advancement is not regular, and depends on the engineer's ability. Opportunities for advancement are considered good at present. Changes in the management of the mine may result in some changes in the personnel of the staff.

Electrical Engineers



Electrical Laboratory, University of Alberta.

Qualifications. A student should not think of becoming an electrical engineer unless he has special ability in, and a special liking for, mathematics. He should have a keen analytical mind. He must be able to work harmoniously with other men. Reliability and integrity are further character traits that are necessary for electrical engineers. He must have a good mastery of English in order to make and read specifications or to sell ideas to a board of directors. He must have complete use of both hands, good hearing, vision and physical fitness, and good control of his nerves. He must have, or be able to develop, the ability to transfer ideas to the drafting board.

Beginners deal mainly with things; the men in the higher positions must also deal with men and ideas. It is wise to plan on entering this profession soon after one becomes 21 years of age. The number entering the vocation is limited to those who are capable of successfully completing a very difficult theoretical and practical training, and also by the developments in the field. The Canadian General Electric Company and the Canadian Westinghouse Company are two good companies in which many young electrical engineers find employment. Applications for employment, together with recommendations as to character and academic and technical training, should be sent to the above companies, to power companies or industrial plants.

Training. The best training is obtained by completing senior matriculation and then entering university for a further period of 4 years in the Faculty of Applied Science. The Engineers' Association requires that, before an engineer may become a member, he must have two years of practical experience. University work includes mathematics, mechanical drawing, elementary design and construction, mechanics, and electrical courses.

The American, the International and the Willard Schools of Chicago offer valuable correspondence courses for electrical engineers, provided one has the facilities for doing practical work at the same time. The Engineering Association demands that learners (other than university graduates) serve eight years, including two years in responsible engineering work, and that they pass certain examinations.

Graduates employed by one of the larger firms usually start work at about $500 a year, increased possibly to $1000 the second year, $1800 for the next two or three years, and later to $2500. Graduates, then, may be in a position to support a home soon after graduation. The Professional Society has had no influence on salaries or commissions.

The Work. The work done by electrical engineers includes: (1) supervision of construction works; (2) designing work to be constructed; (3) testing completed work; (4) supervision of operations at some completed work; (5) selling electrical commodities and power; (6) estimating the cost of projected works. Most of the work requires initiative and originality.

Employment in Alberta may be obtained from: (1) the Calgary Power Company; (2) Mid-West Utilities; (3) Government Telephone System; and (4) various industrial and power plants.

Employment is largely regulated by constructions which may be in progress by the before-mentioned organizations. Industries need electrical engineers; for example, the sugar factory at Raymond needs such men for several months of the year. Building companies require them the year round. In a private practice engineers are engaged in designing electrical installations, usually in association with an architect.

Alberta could use a few men well-qualified in radio work but, as a general rule, there is as yet very little need for specialists here. This is a comparatively new field which undoubtedly has a great future before it. On the whole there are too many electrical engineers in Canada at present, but, of course, the country is still in an undeveloped state. Rapid expansion in many lines would create a demand for such men.

Other Features. Salaried men usually receive two weeks' annual holiday with pay; civil servants are given three weeks. In most cases the hours are regular, for 5½ or 6 days a week. Public holidays are observed by the majority of electrical engineers. Advancement depends on individual merit, and the opportunities for advancement depend upon future developments in the country.

The Professional Society has had no influence in regulating the number of men becoming electrical engineers, nor in upholding the rights of employees. Changes in government do not usually affect the positions of civil servants and such is usually the case when there is a change in the management of an industrial plant. Civil servants are included in a government pension scheme and some of the larger firms provide such a plan for their employees. Wages during an absence from work caused by accident or illness depend upon the employer.

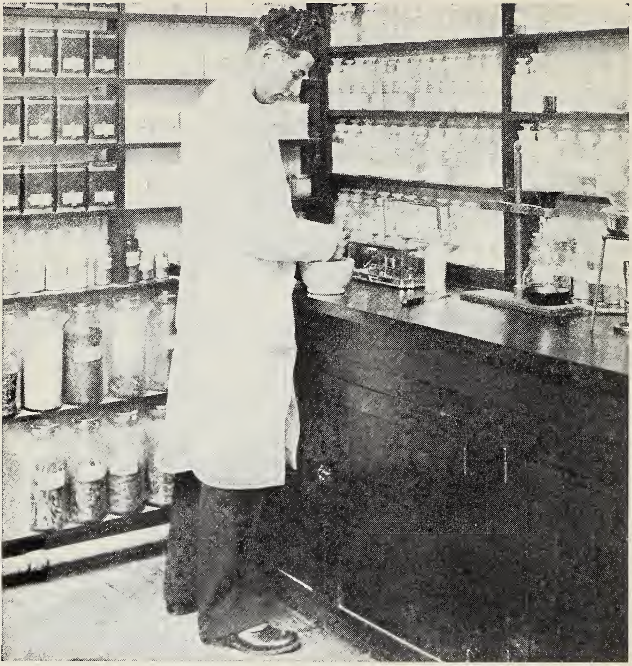
Engineers have excellent opportunities for self-development within the profession and for making some discovery which may prove to be very valuable.

√

Chemical Engineering

Chemical engineering is the application of the natural laws of the science of chemistry to the needs of industry. Formerly chemists were required to do research work and mechanical engineers designed, constructed and operated equipment. Chemical engineering was developed to correlate the work of the chemist and the engineer. The chemical engineer takes the results of the research laboratory and puts the process on a commercial basis. Such men are required in a great variety of industries.

Training. A student should not think of entering this profession unless he has a real liking for chemistry and its closely allied subjects of physics and mathematics. He should complete senior matriculation and take an undergraduate course of 4 years at the University of Alberta leading to the B.Sc. degree in Chemical Engineering. During the academic training the engineer learns little of the practical application of chemistry to industry. Practical training begins when he enters an industry.



His success depends upon his ability to use theory in his practical work.

Many engineers are also finding it advisable to take post-graduate work, for as a profession grows or as one advances in his profession, the greater is the need for advanced knowledge. Thus, a 4-year college course in chemical engineering is not enough, and it is estimated that over one third of the graduates continue post-graduate work for at least one year. More and more are finding it advantageous to secure their doctor's degree.

Qualifications. The chemical engineer must be honest, reliable, and attentive to detail. He must be able to co-operate with other workers. Initiative and originality are demanded of men in this profession.

It is very difficult to give any very definite figures as to the salaries of men engaged in this profession. They range from a thousand to several thousand dollars a year, depending to a great extent on individual training and ability.

Opportunities. Chemical engineering is a relatively new profession, which is developing very rapidly. It is difficult to predict its future, but judging from the progress and developments of the last few years, even imagination may fall short of adequate description of future possibilities. Canada has a chemical industry of great importance. It is very difficult to indicate the full significance of chemistry in Canadian industries because of the fact that chemistry enters into so many industries, including (to name but a few) rubber, iron and steel, paint and varnish, pulp and paper, vegetable oil and soap, automobile, power plants, food, rayon, ceramics, cement, textiles, fertilizers and leather. The development of Canadian natural resources depends on chemistry and chemical engineering. The recovery of metals from ores is accomplished by carefully controlled chemical processes.

At the present time there is a very limited field in Alberta for chemical engineers, only 5 or 6 being members of the Engineering Society. In 1931, 114 men and 6 women were classified as gainfully employed chemists, assayers and metallurgists in Alberta. Most graduates find employment in Canadian provinces.

Other Features. The working hours are usually irregular but it is difficult to generalize in such a broad

Engineering Senior Class in Structural Design, University of Alberta

field. The Professional Society has had no effect on salaries, or upon the number entering the field. Civil servants are not usually affected by a change in the government.

√Mechanical Engineering

There were 42 men classified as gainfully employed as mechanical engineers in Alberta in 1931. The followin quotation, dealing with one branch of mechanical engineering, will serve to indicate the importance of this branch of professional engineering: "There has never been a technical field in which the alert engineer could look forward to more progress than the power-generating field of today." ("Power Plant Engineering and Design" —Morse.) Central heating systems have not been developed to any great extent in Alberta as yet. However, judging by the progress being made in these systems elsewhere, there is every reason to believe that in the not too distant future there will be openings in Alberta for engineers who are qualified for the work.

There is not an oversupply of mechanical engineers in

Alberta at present. The opportunities for obtaining both employment and advancement are good.

The mechanical engineer must have about the same personal qualifications as other engineers. Students desiring to enter this field should obtain senior matriculation and then attend university. The University of Alberta does not offer a complete course in mechanical engineering. Students may, however, take the first two years of training at this university, and then transfer for the rest of the course. The remainder of the training may be obtained at the University of Saskatchewan, Saskatoon. Students who enter mechanical engineering are those who find that their chief interest lies in engines and machines.

The profession has practically arrived at that stage at which an engineer, in order to become a member of the Professional Engineering Association, must have at least the bachelor's degree in applied science. He must also have 2 years of practical experience before the Association will accept him as a member.

Mechanical engineers are required in many different types of work. The main departments of this branch of engineering are:

(1) Machine-design engineering, which covers every type of machine. This branch requires the largest number of mechanical engineers.

(2) Refrigeration engineering, which deals with the production of refrigerating machines.

(3) Heat engineering, which is concerned with the generation and transfer of heat.

(4) Railway mechanical engineering, which deals with the building and maintenance of railway rolling stock, and machines and tools used in railway transportation.

(5) Ventilating engineering concerned with design, in-

stallation and operation of air conditioning and ventilating systems.

(6) Automotive engineering, dealing with the design of engines and vehicles used in modern automotive transportation.

In line with the above outline of the branches of mechanical engineering, these engineers may find employment in the following fields:

(1) Public utilities—gas, electricity and water.

(2) Manufacturing plants, machine shops and foundries. This is a very limited field as yet in Alberta.

(3) Railroading, as related to rolling stock.

(4) Refrigeration. Again this is still a limited field in Alberta. However, mechanical refrigeration requires mechanical engineers.

(5) Mining.

(6) Power plants.

(7) Heating, including ventilating and air conditioning.

(8) Automotive transportation: (a) sales and service of automobiles and tractors; (b) operating and service of aeroplanes.

The engineering department in public utilities, railroading and heating has an engineering personnel. Engineers are required in each of the 4 main branches of this department. There are, then, engineers in *executive* work, as well as in the *engineering*, *operational* and *construction* branches of this department.

Other Features. Advancement is regular for the qualified engineer. As a rule there is little question of losing his position, providing the engineer is doing his work in a satisfactory manner. As is clear from the variety of work, mechanical engineers may be required to deal with persons, things and ideas, depending upon the nature of their employment. The hours for most of these employees are quite regular. In some of the above branches of the work, as for instance in public utilities, the nature of the work requires that there be engineers on duty at all hours. This means that some men will be required to work at nights. Shifts are usually about 8 hours in length. Young mechanical engineers may start work at about $1,800.

Architects

There were 36 men classified as gainfully employed in Alberta in 1931 as architects; 12 of these were classified as wage-earners.

Qualifications. This is one of the oldest arts, as well as one of the greatest and most difficult. The architect must have command of many talents. He must be a creative artist and must be able to translate abstract ideas into concrete form. He needs to know something about building construction, plumbing, heating, lighting and ventilating. He must be able to draw up specifications. He must be able to meet and deal with the public and must have excellent organizing ability.

The architect must therefore have a long and serious training before he can properly perform his duties. He should have a university education, supplemented by a period of travel and practical experience in an office for at least 2 years before he should think of placing the word "architect" after his name.

Training. In Alberta architects are required to be graduates of an approved architectural school or to have passed the examinations provided for by legislation. The University of Alberta course requires 4 years of study; the McGill course requires 5 years. There is no apprenticeship in Alberta; a certain amount of valuable training may be obtained through technical and correspondence courses. However, the student must pass the Architectural Association examinations.

Architects may be engaged by governments, cities or large firms, at salaries ranging from $1,500 to $3,000 a year. Employment of assistants is largely casual, depending upon business conditions and terminable upon a month's notice. Employment is frequently for a set period of time, or for the duration of a certain piece of work. The Architectural Association prescribes fees of from 5% to 6% as the minimum commission and it is considered unprofessional to cut fees.

The Work. The work of the architect is neither monotonous nor repetitive; initiative and originality are necessary characteristics of the architect who is required to deal with persons, things and ideas. Routine work is delegated to draftsmen and assistants under supervision; these latter may hope to establish their own practice.

As an assistant, an architect must find an employer who needs assistance; as a principal, he must find employment from individuals or associations who need the services of an architect in carrying out building projects. Larger centres and prosperous times offer the best opportunities to the members of the architectural profession. The architect must find his own work on his own initiative, relying on his own personal character and reputation as an architect.

The duties of an architect may be summarized as follows: (1) carrying out consultations on building projects, and making preliminary sketches; (2) making working plans and detail drawings of building projects; (3) preparing detailed specifications of labor and work required; (4) receiving and examining estimates of the cost of the work from contractors; (5) arranging contracts in legal form; (6) supervising the actual work, and checking the quality and quantity of the work done; (7) certifying completeness of the work and making final payments; and (8) acting as an agent for the owner in respect of the work. The architect obtains his inner satisfaction from the fact that he is a creative artist and that he is building for the future.

The work is very seasonal, so that the architect may find himself with a great deal of work at certain times and with very little to do at others. Assistants are usually required to work from 9 a.m. to 12 noon and from 1 p.m. to 5 p.m., for 5½ days a week. These employees are usually given 2 weeks' annual vacation with pay. The Professional Society does not act to uphold the rights of employees or to regulate the number of men entering the field, except in so far as it is necessary to pass certain examinations before they can become members of the society. Changes in government may have some effect on government employees; changes in the management of an office may affect the personnel of the office.

Other Features. There is no retiring age nor any group insurance for architects. Wages may continue during an illness.

The work of the architect is of vital importance to society. It adds to the efficiency of working conditions, to the comfort of the members of society and to the self-respect of the community. It definitely contributes to the mental and physical health and well-being of the community. In most cases architects are not required to do much travelling or to spend much time away from home. The architect enjoys a certain amount of freedom with respect to social, political and religious activities, but he must exercise a certain amount of discretion so as not to make himself unpopular by reason of his beliefs. The work has no harmful effects on health or nerves.

Before definitely deciding to enter this profession, a student should ask himself if he can stand the strain of a long theoretical and practical training. He should remember that he may not expect great monetary returns, but that he is entering a vocation which offers a never-ending variety of work. He must have a good imagination, a good education, a technical knowledge of a high order, and the ability to visualize the completed structure and translate it to paper.

Mechanical Drafting

A satisfactory training for this course can be obtained by completing the work of grades 9 and 10 and then taking a practical machine shop course. This latter training is offered at the Edmonton Technical School and at the Institute of Technology and Art. Full details may be obtained by writing to these schools for information regarding their courses.

Salaries of employees engaged in this occupation range from $50 to $300 a month, but probably average about $100 to $150. Training for this vocation may be utilized in various branches of the drafting trade, in assembly plants, in shop work and for teaching beginners. The automotive industry, mining, agriculture, and highway construction require the services of mechanical draftsmen. The demand for such men is not very great in the West. Eastern Canada, United States and Great Britain offer the best opportunities. As one advances in the vocation he is given more responsibility in the handling of men and less actual drafting.

There is no compulsory retiring age and no pension scheme for draftsmen, except possibly in some of the larger firms. Most employees have a large measure of freedom in their social, political and religious life. Wages may, or may not, continue during an illness.

CHAPTER XIV

PROFESSIONAL SERVICE (Concluded)

Chartered Accountants

The Work. Accountants may engage in the public practice of accounting or go into the comptroller's office of a corporation. The public practice is an interesting but limited field. The work consists of installing new accounting systems for clients, revising old systems, and ascertaining and certifying a client's financial status.

Positions in the comptroller's department offer a much wider field at the present time. The chief accountant organizes the internal records of the firm and prepares financial statements for the management. Inventories of supplies and resources, and the necessity of making tax reports require the accountants to work long hours during the fall and spring months.

A good deal of the work is routine, but the nature of the duties depends on the business of the employer or principal. Further, the work becomes less routine as one advances to the more desirable positions. The more successful accountants may be engaged in audit work of a higher class including the verifying of accounts, the detection of fraud, preparation of financial statements and income tax returns, and the offering of advice on various phases of accounting.

Qualifications. The successful chartered accountant must have a pleasing appearance, engaging manners, good health, eyesight and hearing. He must be tactful, honest, industrious, reliable, sober, and accurate. He must be trustworthy, have the ability to offer good, sound advice, and have a thorough knowledge of ethical conduct. He must have training and ability in mathematics and economics. He needs a general knowledge of business activities and commerce, accounting, auditing, mercantile law, statute law, and business finance. The number of men becoming accountants is regulated by means of examinations and articling. Most accountants enter the profession some time between their 17th and 25th birthdays. Recommendations as to academic standing and character are required from all applicants for positions.

Training. There are three distinct methods of becoming a chartered accountant.

(1) After having obtained senior matriculation a student may become "articled" to a practising member of the Institute of Chartered Accountants who is resident in Alberta. It will cost $10 for registration, $60 for examinations, and $70 for each yearly course for five years. Finally there is a $50 entrance fee which the accountant is required to pay after he has passed the examination.

(2) University graduates are required to be articled for a period of 4 years to an accountant. They are required to write only the last three examinations.

(3) University graduates who have a Bachelor of Commerce degree must be articled for three years. In this case they are required to study the last two courses and write the last two examinations.

Further information may be obtained by writing to:
The Secretary,
The Institute of Chartered Accountants of Alberta,
531 Lougheed Building,
Calgary, Alberta.

During the training period a learner may be paid from $50 to $100 a month, depending upon experience and ability. A senior who has more than 4 years of experience may receive from $150 to $200 a month and up.

Opportunities. As a chartered accountant, work may be obtained in any of the following fields: (1) in general public practice; (2) as assistant to a practising C.A.; (3) in the Civil Service, in the Audit Department, or the Income Tax Branch; (4) in commercial concerns as accountants, office managers, credit managers; (5) lecturing at the University or in commercial schools; (6) as a secretary-treasurer, or municipal treasurer.

On the whole, opportunities are fairly bright for chartered accountants in Alberta. Members of this profession suffered less from unemployment than many others in Alberta in 1931. In normal times the demand for highly trained men exceeds the supply. Opportunities at present are greatest in the United States, but in the not too distant future opportunities in Canada, especially in the industrial and commercial centres, will greatly increase.

Other Features. As a rule accountants are required to work about seven hours a day for six days a week. They are not usually paid for overtime but they observe public holidays and are given two or three weeks' annual holiday with pay.

There is no uniform rate of advancement, which depends mainly on merit and special training and also to a lesser extent on seniority. The number entering the profession is regulated somewhat by the long period of articling that is required and the rigid examinations that must be passed. Difficulties between employer and employees may be referred to the Institute of Chartered Accountants of Alberta.

No special provisions for insurance or pensions are offered to chartered accountants. Wages may continue during absence from work due to illness, depending on the employer.

Accountants receive their inner satisfaction from the fact that their information may be regarded as reliable and may lead to the prevention of great financial loss. The work of the junior is fairly monotonous. Some accountants are required to do considerable travelling. There is ample opportunity for self-development within the profession, and most accountants enjoy a large measure of freedom in their social, political and religious beliefs. The close nature of the work may have its effect on health and nerves.

Commercial Art

Qualifications. Originality, thoroughness, neatness, patience, inventiveness, resourcefulness are all characteristics which are to be found in a successful commercial artist. *Creativeness* is one of the most important qualities necessary for success. A commercial artist must be able to meet people in order to establish business contacts. Good health, eyesight, and steady nerves are very necessary for success in this occupation. Color blindness would be very detrimental. Since this is a craft more than an art or profession, entrance into the occupation is not limited by academic training, but the more education one has, the more likely one is to be successful. The best preparation is obtained by attending an art school. A technical school education of fine and applied arts, drawing and design, the chemistry and physics of color and pigments, the theory of engraving and lithographing give a very fine training. The theoretical work should be supplemented by visits to plants engaged in commercial art work. A knowledge of lettering of various kinds and for various purposes and of drawing, including figure, animal and object, is essential. The artist must have a knowledge of composition and of color and its appeal, and the ability to criticize. He must have skill in pencil, pen and ink and color technique. Creativeness is the *great essential for a leader. Employment is regulated by supply and demand, and is determined by ability.* Graduation from a recognized school is valuable but not necessary. There are no age restrictions placed on entrants into the vocation but an early start after a good education is advisable.

Training. Four methods of obtaining satisfactory training are suggested:

(1) Shop training.

(2) Correspondence courses.

(3) Art schools in the East and in U.S., at Toronto, New York, Chicago, Detroit, Cleveland, and Boston. At New York three semesters are required. The estimated cost per semester is as follows: Fees—$25, board—$85, tools—$10 and 10c a day.

(4) The Institute of Technology and Art, Calgary. The estimated cost is: fees—$35 per year, board—$20 to $30 a month, tools—$25. The Institute offers six scholarships to the value of tuition fees for second-year students. After completing this work a student should go to some large city to seek employment.

(5) There are a few places where training may be obtained by serving an apprenticeship. Brigdens Limited of Winnipeg engage some apprentices in order to train them to their own work. This is usually considered a good form of training because it gives one the opportunity of working with experienced artists. Apprentices may be paid from $5 to $8 a week.

Earnings. It is very difficult to state the range of salaries. There are some artists who barely exist for years, while others may break into the "big money" almost immediately, although this happens very infrequently. Income, then, is a very indefinite affair, depending entirely upon the ability and creativeness of the individual to produce work that will sell. Some employees are paid regular salaries, others are paid by the job. Some artists are engaged solely in "free lance" work.

The Work. In general the commercial artist is required to make drawings which are designed to aid in the selling of some product or service. There are three main divisions of commercial art:

(1) Industrial, which includes the designing of commodities before actual production. This relates to materials that are produced by machines.

(2) Illustrating, which includes catalogues and their planning, as well as story illustrating.

(3) Advertising, which may include both (1) and (2) and covers the planning, illustrating, and lettering of all types of advertising.

The field of application for this training is very broad, and the individual may do "free lance" work when not employed for wages. Still this is, in many respects, a luxury, so that remuneration depends on economic conditions. The general field of commercial art includes design, engraving, photography, sign-painting, scenery sketching, sculpture, and modelling. In more detail the work includes: retouching photographs and printed copy, designing, lettering, mapping letterheads, designing fashion figures and covers, cartoon designing, air-brush work, machine retouching and general catalogue illustrating. Artists usually specialize along one line or a group of allied lines as, for example: (1) drawing only cooking utensils, shoes or cars; or (2) illustrating stories.

Beginners in an art studio are given the work which they are most capable of doing. As they show improvement they are given more difficult work to do. The more capable men may become head artists, whose duty is to supervise the work of the other employees. They may also choose the work which they prefer, or the work which offers the greatest financial returns. Advancement, then, may mean that the artist is given the opportunity to specialize or supervise. The work is varied enough in most cases to be very interesting.

Openings. Let us list a few of the fields which require the services of commercial artists. Work may be obtained in: (1) engraving or lithographing shops; (2) advertising agencies; (3) large departmental stores; (4) printing plants; (5) industrial plants; (6) outdoor advertising boards; (7) show card writing; (8) window decorating; (9) theatre advertising; and (10) travel advertising.

The supply usually exceeds the demand. It is estimated that a graduate of an art school has about one chance in two of obtaining employment. A student should realize, then, that this is a crowded occupation and should very seriously consider his chances of success and happiness in the work before deciding on a career in commercial art work. Specialists receive the highest pay and are in demand in many fields. About 40% of commercial art students are engaged in advertising, 30% in publishing, 20% in architectural work and 10% in miscellaneous work. This is a fairly old but growing occupation. The greatest opportunities are to be found in the more densely populated centres.

Other Features. Employees usually work about 8 hours a day. "Free lance" artists work whatever hours they prefer. Employees are usually given 2 weeks' annual vacation with pay. There is no compulsory retiring age for artists, nor have they a pension provided for them when they retire. Wages may continue during illness, depending upon the firm and the value of the employee to the firm.

Employees may use their leisure time in developing their abilities and in doing "free lance" work. Artists get their satisfaction from seeing their work before the public. They are free to use their *initiative and originality, and indeed must use it if they are to be successful.* Most artists are not required to do much travelling. They enjoy freedom with respect to political, social and religious privileges. The work may at times be fatiguing and tiring. Eye strain is caused by the close work and lighting conditions in the shop. It also tends to have considerable ill effect on general health because of the great amount of inactivity each day.

Journalism

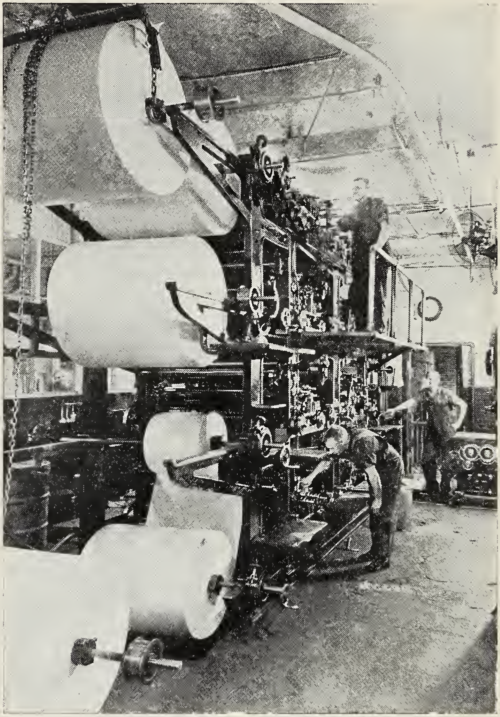
Journalism is a very broad field, including men primarily engaged in business affairs, others in editorial branches; some are employed by newspapers, dailies or weeklies, and by periodicals. Some are engaged in radio writing or ghost writing, while still others write books or proofread printed material. Within newspaper work itself there are many divisions of labor, some of which will be mentioned in the course of this article. In what follows we are referring mainly to journalism as applied to newspaper work.

Magazines and newspapers are now giving preference to university graduates when new employees are to be engaged. The university courses that are favored by editors include English, history, economics, and political science. The reason for this is easily found when we know that newspaper work is becoming highly specialized and systematized. Reporters are assigned to specific topics, such as those dealing with civic affairs, police court, labor, business, finance, mining and sports. Generally reporters deal with the same topics day after day. Many articles need to be "pepped up" after they have been written by the reporters. This is the work of the "re-write" man. Besides these employees there are also columnists, news commentators, telegraph editors and cable editors. The city editor must know the work of each member of the staff and must have a broad educational background. An editorial writer can not be too well informed and he must add to his knowledge at every opportunity. English, language studies and social studies will improve his ability to express himself, and will give him a broader outlook.

A fundamental requirement of journalism is accuracy. One editor considers that the infinite patience necessary for the gathering of accurate information is more important than the ability to write what one has learned. Of course the best newspaper reporters combine both of these qualities.

The student who is looking forward to a successful career in journalism must continue to be a student all his life. His range of knowledge cannot be too great. He must be sufficiently interested in the subject of writing so that he will learn to express his ideas clearly, concisely and accurately, regardless of what it may cost in terms of hard and conscientious work.

Training. From what has already been said it should be clear that a student who wishes to enter this occupation should complete four years of high school education. If he desires to advance to the better positions, he should then attend university and take such courses as English, history and political economy. Many graduates are now taking a course in a School for Journalism which is offered at certain universities, such as, at the University of Washington. Western Canadian Universities do not offer such courses. A good knowledge of geography and of municipal, provincial and federal governments is very valuable. Shorthand and typing are decidedly useful accomplishments for any person entering the occupation as a reporter.



By courtesy the Edmonton Bulletin.

THE PRESS ROOM OF A DAILY NEWSPAPER

Qualifications. The successful journalist must always have a pleasant manner and a smile and be able to retain friends. He must be able to meet all classes of people and have the ability to "listen well" in addition to talking well. He must have a "nose for news." He must not be easily discouraged. Any person who lacks sympathy or is too reserved or tactless will not be successful as a journalist. He must be trustworthy. He must be capable of looking honestly at the facts; he must have the desire and the ability to see both sides of a story; he must be able to withstand the witchery of words. General good health and physique, neatness and versatility are demanded in a journalist. He must have keen powers of observation and a good memory, so that he can later accurately record the necessary details. Most journalists enter the occupation between 18 and 25 years of age. They usually get into the "game" by reason of the fact that they knew some one already in the occupation. They must retain their position by showing the necessary ability and desire to succeed.

The training obtained in a newspaper office is very valuable if one desires to obtain employment with business-house magazines, trade papers, publicity branches of businesses, press associations, radio work or if one desires to make his living as a free lance writer, or a ghost writer.

Many successful men started their careers in journalism as office boys. By showing proper interest and aptitudes for work, and supplementing their practical experience by attendance at evening classes, they were able to advance to the more desirable positions. Frequently high school boys do special assignments, especially on sports, during their spare time, and thus obtain an early insight into the nature of the work.

Earnings. Office boys are generally paid from $10 to $12 a week. Many reporters are paid from $20 to $25. Salary is mainly determined by the position of the employee and the class of newspaper for which he works.

In Alberta there are certain reporters who earn as much as $60 a week. Reporters may, in some cases, attain a modest home-supporting status within 5 years after starting work. There is no definite rate of increase of salary, which may be paid on a weekly basis or as a space rate. Unions have not had any influence on salaries of journalists. The important news gathering and disseminating agencies pay a much higher rate for news stories than do individual newspapers. A single dispatch may bring in $10, depending upon its importance and news interest. One Toronto Daily paper pays a minimum of $1 for even a brief telegram announcing an accident or a fatality.

The Work. Most reporters have a regular beat, covering news of interest of the city hall, labor, police, military or sports. Several reporters may be assigned to very important events. At the desk in the offices are the copy readers, who edit copy of all types, local and telegraphic, and the headline writers. Editorial writers prepare the editorials and edit copy for the editorial page.

As one advances, the work becomes more exacting and responsible. One may be promoted from reporter to the copy desk, city desk, to the editorial room and executive positions. One may become a copy reader, special correspondent or a special feature writer on finance, politics or religion. One may become a critic of music, drama or literary works, or a columnist, or a city, night, sport, society or managing editor or editor-in-chief. In almost all positions there is much routine work, but there is plenty of variety too.

The larger daily papers require men who have specialized along certain lines, but the demand depends to a great extent upon general economic and financial conditions. In good times there is a demand for publicity men. Cities, indeed, often engage these latter men to attract tourists.

The chances of obtaining employment are greatest in Eastern Canada and in the United States. Application for employment should be sent to the city editor or the managing editor of the newspaper for which one desires to work.

Other Features. Theoretically the working day consists of 8 hours, but actually the hours may be long and uncertain, for events of newspaper importance may happen at any time. Newspaper workers work 6 and sometimes 7 days a week. Some members of the staff are given public holidays. Most employees enjoy 2 or 3 weeks' annual vacation with pay. A change in government does not affect the positions of employees, but a change in management may have considerable effect on the personnel of a newspaper.

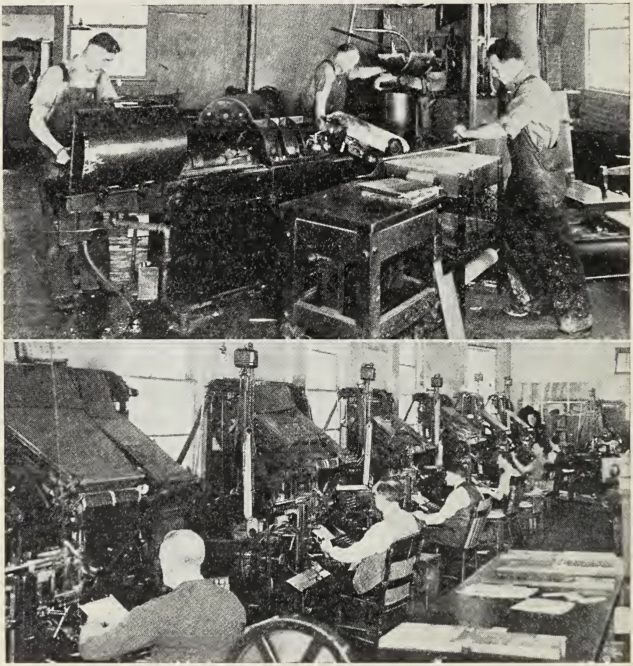
There is no compulsory retiring age for journalists nor do they share in any pension scheme. Some newspapers offer group insurance against sickness, accident and death. Generally, salaries continue in case journalists are forced to be absent from work by sickness.

Many employees use their spare time in free lance work. Journalists take great pleasure in seeing their stories printed. As a rule persons in this profession are accorded a good social standing. The words of one reporter may be quoted to indicate his idea of the importance of newspaper work: "What (name of paper) says today, the people think tomorrow. If they don't, they should."

Most newspaper men are congenial. The work is not monotonous, and workers are continually in need of initiative and originality. Many reporters are required to do considerable travelling and to be absent from home for long periods of time. For example, Gordon Sinclair, a few years ago, was required to do a great deal of travelling by the Toronto Star News Syndicate.

Within certain limits imposed upon them by the policy of their paper, journalists enjoy some political freedom. There are no restrictions placed on their social and religious privileges.

A certain amount of nervous tension is unavoidable



By courtesy the Edmonton Bulletin.

Preparing to Print the News:

Upper—Casting *Lower*—Linotyping

and those individuals of a nervous temperament are apt to find the work rather trying. However, if they have the proper qualifications and take reasonable care of themselves they should not suffer from the work.

Other Occupations in Journalism. The above account of journalism has not included any mention of circulation or advertising. It is the duty of the circulation manager to secure readers. He is responsible for the distribution of the paper, that is, he is a type of salesman. The advertising manager is responsible for securing advertisements. Photographers are a further necessary cog in the newspaper machine. In the proof room all copy is carefully checked for errors.

A certain number of women are engaged in journalism, especially as society reporters, women's page editors, shopping guide writers, and children's page editors. Women who know textiles, color, design and fashion are very important parts of the advertising branch of journalism.

Radio writing is considered to be the most intricate form of original expression, for the radio script must give the important features in as short a time as possible. Individuals engaged in this work are highly trained and experienced. The field is practically closed to amateur writers.

By ghost writing is meant writing for some other person. Many articles by prominent men in industry, arts and sport have been written by ghost writers. This form of journalism makes it possible for persons to express their ideas even though they lack writing skill. The ghost writer requires all the tact and diplomacy found in good reporters as well as a good versatility of style and facility of expression. He must have an intimate understanding of the person for whom he writes.

Space does not permit of much discussion on the writing of books. It is said that for every 1,000 manuscripts submitted by unknown writers, the editors buy ONE. A literary reputation improves, like wine, with age. A successful book writer must spend years building up a reputation. Good luck in capturing the fancies of publisher and public is essential for making a success of writing. Frequently perseverance in selling a manuscript is important, for a book that several editors have refused may be accepted and successfully sold by another editor.

Writing for the motion pictures is another highly specialized branch of the writing occupations. Scenario writing offers *very little for the inexperienced writer.*

Photography

An Aerial Photograph

Photography may be either an art or a craft or both, and may be divided into 6 branches as follows:

(1) Life or portrait. The photographer occupied with this branch of work takes pictures of customers in his studio.

(2) Art. The photographer in this field is engaged in producing photographs of real artistic merit. He may photograph landscapes or living subjects.

(3) News. This branch of photography is part of the journalistic work.

(4) Aerial photography. The man engaged in this work takes photographs from the air, from balloons, aeroplanes or tall buildings.

(5) Commercial photography. Photographers in this work prepare photographs for advertising agencies.

(6) Cinematography. These photographers take pictures with the motion picture camera.

Qualifications. In this section it will be possible to deal only with the photographer engaged in the first mentioned branch. A person enters photography if he has or seems to have a particular liking and aptitude for it. He should have a love of art and beauty. He must be artist enough to like photography, whether amateur, commercial or portrait. He must take pleasure in doing his work well. He must be able to meet and please the public and so should have a neat personal appearance. He must have the capacity to be patient and to do work that requires great attention to detail. Since the work is of a confining nature, he should have good health and lungs. It is wise to start soon after one becomes 18 years of age.

Entrance into the occupation is not limited by a demand for a specific amount of academic education, but such an education gives a cultural background which is of great value in attracting customers to the studio.

Training. An apprenticeship, served under a good photographer, gives an excellent opportunity for learning the art from the experience of others. The Technical School in Edmonton offers a valuable course for photographers. There are several schools in the United States which offer training in photography. A list of schools and addresses can be obtained from the Eastman Photo Company. In these schools the students learn re-touching, tinting, lighting, the mixing of chemicals, developing, and how to print pictures and meet the public.

The apprentice may be paid a small wage while he is learning the business. The minimum salary for employees is $12.50 a week. Experienced men receive from $18 to $25 a week. Managers may be paid $2,000 a year. As a rule, owners make a good living over a period of years, but the public is very fickle. They will patronize one artist for years because of the fact that Lady So-and-So had a smart picture, produced by this artist, in the rotrogravure section of a newspaper. Whether the picture looks like Lady So-and-So matters little; the artist is on his financial feet, for the time being at least.

Other Features. Photographers must be prepared to deal with ideas, men and things. In the small shops one man may do all the work, but in larger firms the final result may be obtained by a division of labor. When a photographer feels qualified he may set up a shop for himself. The larger the community, the greater are the opportunities, but it should also be remembered that the competition will also be keener. First class help is not plentiful; indifferent help is. Only about one half of the photographers in Alberta in 1931 were employees.

As a rule the hours for employees are regular, being from 8 a.m. to 6 p.m., with 1½ hours off for lunch. However, the amount of work done during the day varies greatly, for there are both busy and slack seasons. Advancement depends upon merit. Business conditions determine how much promotion may be obtained.

Success depends upon individual enterprise. There is no pension scheme for photographers. Employees may continue to receive pay during an absence from work which is caused by illness.

In conclusion we quote one photographer: "Life is what we make it. For nearly 50 years portrait photography has been to me a pleasure, a worry and a nuisance—and yet still a pleasure. And in times of depression it is a splendid hobby."

CHAPTER XV

SERVICE

A CITY FIRE DEPARTMENT

Many occupations are included in the industrial group known as Service. There are 5 major subdivisions of service. These sections are known as public administration and defence; recreation; professional and personal services; and laundering, cleaning, dyeing and pressing.

This chapter will deal with a few of the occupations found in some of these subdivisions. Professional services were treated in previous chapters.

Public Administration and Defence

Practically all individuals gainfully employed in this branch of service are male employees. Table LXX shows employment conditions among wage-earners in Alberta in 1931.

TABLE LXX

MALE EMPLOYMENT AND UNEMPLOYMENT IN A FEW BRANCHES OF PUBLIC ADMINISTRATION AND DEFENCE IN ALBERTA IN THE YEAR 1931

	Employees No.	Losing time No.	Losing time %	Time lost %
Public service officials	669	31	5	3
Firemen—fire department	220	6	3	1
Other ranks—army, navy and air force	153	11	7	3
Police and detectives	650	42	6	3

NOTE: There were 12 female workers in this branch of service, 8 of whom were engaged as "police and detectives."

Source: Volume VI, 7th Census of Canada, 1931.

TABLE LXXI

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR MALE WAGE-EARNERS ENGAGED IN PUBLIC ADMINISTRATION AND DEFENCE IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Empoyees No.	Average earnings $	Average yearly work Weeks
Public service officials	217	2,750	51
Firemen—fire department	199	1,430	50
Officers—army, navy and air force	21	2,580	52
Other ranks—army, navy and air force	149	845	50.1
Police and detectives	335	1,425	48.7

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

The Army

Pay and Hours. Privates in the Army are paid $1.20 a day and board. Officers, depending on the rank, receive from $3 to $5 a day and board. Executives and higher officers may receive as high as $20 a day. An increase in salary accompanies a promotion from a lower to a higher rank. Increased responsibility is also characteristic of promotions, which depend on both ability and seniority. The hours are usually regular, consisting of an 8-hour day, from 6 a.m. to 4 p.m., for 7 days a week. Public holidays are observed and annual holidays of 21 days are given to all the men in the service.

Qualifications. Most officers are required to have at least grade 12 standing, and other ranks at least grade 10. Specialty officers for the air force, or ordnance and electrical engineers should have completed senior matriculation and have a B.Sc. degree from a university although this is not enforced at present. Leadership, confidence in one's ability, courage, initiative and first class physical fitness are required of men entering the army. Physical examinations and educational certificates are required of all applicants. Entrance is most easily effected between 18 and 25 years of age. Any individual who has obtained a B certificate from the University of Alberta C.O.T.C. is qualified to apply for a commission in the Imperial Army for the arm in which he is qualified.

In many of the towns of Alberta there are local militia units in which valuable training may be obtained. Graduates and undergraduates attending the University of Alberta may enroll in the Canadian Officers' Training Corps. The best training is to be obtained by attending the Royal Military College at Kingston, Ontario. The 1937 Canada Year Book, pages 1,028-31, contains a short article dealing with academic requirements for entrance and the training offered at the college.

Advantages and Disadvantages of this Occupation. Age of retirement varies with the rank. A pension scheme is in operation for members of the permanent force. There is an insurance plan, to which each individual contributes, to give protection against illness, accident and death. Men continue to receive their pay during any absence caused by illness or accident. Considerable travelling and long absences from home may be required of some members of the force to enable them to attend camps and schools. There are excellent opportunities for self-development within the occupation. These men enjoy complete freedom with respect to their political and religious activities. This is a very healthful occupation, and one which has excellent effects on the nerves.

Canada is divided into 11 military districts, each under a commander, in order to facilitate the command, training and administration of Canadian militia.

The strength of the Permanent Active Militia is limited by the Amending Act of 1919 to 10,000 men, but at the present time there are less than 4,200 men in the organization. Schools of instruction are conducted at all stations of the Permanent Force in Canada. The following table shows the strength of the militia in 1936.

TABLE LXXII

STRENGTH OF PERMANENT AND NON-PERMANENT ACTIVE MILITIA, CANADA, 1936

	Permanent active militia Personnel	Non-permanent active militia Personnel
Staff and General List	462	
Cavalry and Mounted Rifles	438	8,852
Field Artillery	407	9,797
Medium Artillery	56	2,309
Heavy Artillery and anti-aircraft Sections	257	1,651
Engineers	283	4,332
Signals	461	5,380
Infantry	1,004	55,633
Officers' Training Corps		4,551
Army Service Corps	284	1,393
Non-Combatants	906	5,687
Totals	4,158	99,585

Source: Canada Year Book, 1937. Page 1,026.

In addition to the Active Militia there is also a Reserve Militia, which is designed to act as a basis for contingent military organization. Drill and training are voluntary and entail no expense to the public.

Royal Canadian Mounted Police

Royal Canadian Mounted Policeman

Qualifications. "The number of better educated men who sought enlistment with the force is being maintained and as the educational requirements have been raised, the average standard of acceptance is higher now than at any time in the force's history." (Report of the R.C.M.P. for the year ending March 31, 1934.)

In the year ending March 31, 1935, there were 2,248 applicants for engagement in the force. This was only about 50% of the number who applied the previous year.

Of these applicants 217 recruits were engaged and 10 others returned to the force after leaving it. In the *educational test for candidates for engagement a new system of marking was instituted to assist in more accurately deciding on the work in which the applicant was to be placed.* The raising of the educational standard for entry into the force is considered as accounting for the decrease in the number of applicants.

Training. The principal training centre is at Depot Division, Regina, Saskatchewan. Certain recruits have completed the training in 6 months. Promotional and refresher courses are also given at Regina. The course given to recruits consists of two parts, as follows:

MOUNTED POLICE—PHYSICAL TRAINING

(1) Foot and arm drill, equitation, cavalry drill, physical training and jiu-jitsu, musketry and revolver training, and an extensive series of lectures on Rules and Regulations and History of the Force, first aid and the Constable's Manual.

(2) Lectures on the Criminal Code of Canada; federal and provincial statutes; procedure and preparation of detachment returns; instruction in the use of the type-

writer; the care and operation of motor transports; and truncheon drill.

There were 2,584 men of all ranks in Canada on December 31, 1936. That the work is very healthful is seen from the fact that the daily average of men off duty for the whole force was 7.87 or 0.31%. The specific illnesses accounting for most of the lost days, in decreasing order of importance, were: influenza, injuries, bronchitis, infections, la grippe, appendicitis and sprains. Members of the force are entitled to free medical service and hospitalization. Within certain limits, their dependents are also given free medical attention. Pay stops after 6 months' hospitalization in those cases in which the injury was not sustained in the performance of duty.

The Pay. The following table indicates the rates of pay for the various ranks in the force.

TABLE LXXIII

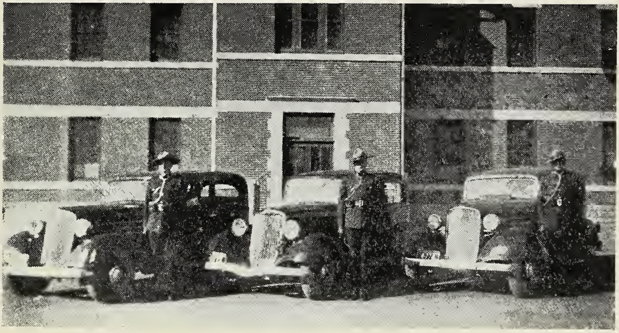
DISTRIBUTION AND SALARIES OF MEMBERS OF THE FORCE IN ALBERTA, DECEMBER 31, 1936

Classification	No.	Salary
Assistant Commissioner	1	$2,850—$3,250
Superintendent	2	$2,250—$2,650
Inspector	8	$1,650—$2,050
Staff Sergeant	4	$3.25—$3.75 per day
Sergeant	27	$3.00 " "
Corporal	32	$2.50 " "
Lance Corporal	14	$2.35 " "
Constable	225	$1.50—$2.25 per day
Sub-Constable	2	$1.25 " "
Special Constable	25	authorized by minister
Total	340	

Source: Report of R.C.M.P. for year ending March 31, 1935, and Canada Year Book, 1937.

By an act assented to on June 28, 1934, the R.C.M.P. Act was amended to provide pensions and other benefits for the widows, children and other dependents of non-commissioned officers, solely out of contributions made by these officers.

During the year 1936, 347 men joined the force, thus increasing the force by 69 members.

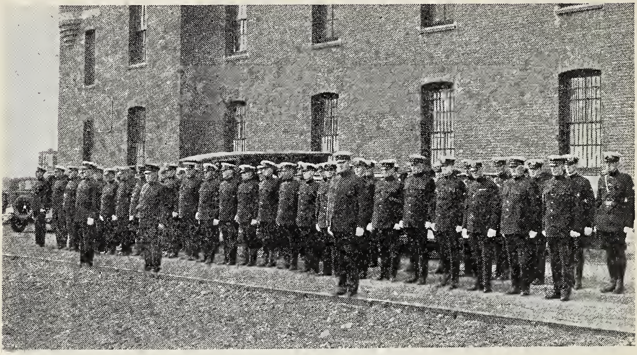


Mounted Police—Car Patrol

The Work. "At the present time the Royal Canadian Mounted Police is responsible throughout Canada for the enforcement of the laws against smuggling by land, sea and air. It enforces the provisions of the Excise Act, is responsible for the suppression of the traffic in narcotic drugs, enforcement of the Migratory Birds Convention Act, and assists the Mines and Resources, Fisheries and numerous other Dominion Departments in executing the provisions of their acts, and in some cases in administrative duties. It is responsible for the protection of government buildings and dockyards. It is the sole police force operating in the Yukon Territory and the North-west Territories, and performs a variety of services in all provinces and both Territories for the Dominion Government." (Canada Year Book, 1937.)

The term of engagement is 5 years for recruits with opportunities for re-enlistment for 1, 2, 3 or 5 years.

City Policemen



A City Police Force

Qualifications. A policeman must be courageous, honest, tactful, punctual, vigilant, resourceful and obedient. He must have good self-control, an even temper and civility. He must have a "sound mind in a sound body." He is required to be a certain height and weight. He must be observant, tenacious of purpose and attentive to duty. If he desires to advance in the service he should have some training in shorthand and typing. Special knowledge of finger prints, handwriting, ballistics, bloodstains and chemistry is very valuable in obtaining promotions. Those applicants who appear to have the necessary qualifications and who are between 21 and 30 years of age receive the greatest consideration. The medical examination eliminates more than half of the applicants. Certain other standards and tests also play an important part in choosing suitable men. Letters of recommendation, as to character, personality, athletic ability and education should be included with the application.

The Pay. Young constables are given a probationary period of from 6 to 12 months. The training received in the police force may be utilized in the army, navy or private detective work. A certain stated salary is paid during the probationary period. The initial salary varies with the particular force, but ranges from $100 to $150 a month. The usual salary is about $140 a month.

Following is the scale of wages for the Edmonton force:

Third class constable	$125 a month
Second class constable	$135 a month
First class constable	$145 a month
First class A constable	$155 a month (after 7 years of service.)

Increases are given regularly to members of the force until the maximum is reached. In some cities the police forces have organized unions, but, as they are civic employees, it has never been necessary for the unions to help policemen collect their salaries.

Duties. The duties of a policeman are almost too numerous to mention, but they may be roughly divided into three groups: (1) preservation of the public peace; (2) prevention of crime; and (3) enforcement of the law. He is expected to guard public and private property and enforce by-laws concerning street traffic. He must obtain a true account of an accident and deliver it to police headquarters. The investigation of thefts and other criminal offences are left mainly in the hands of the detective staff. In order to perform his duties in an efficient manner he must be thoroughly acquainted with all standing and general orders, statutes and by-laws. Advancement in the force brings added responsibilities. Many duties are somewhat routine in nature, but there is something new almost every day. Opportunities for finding employment are greatest in the larger cities.

Some of the members of the force include: three classes of constables and corporals, sergeants, patrol sergeants, detectives, detective sergeants, station sergeants, sergeant-majors, inspectors, chief inspectors, chief detective, deputy chief constable and the chief constable or commissioner. Of course, all of these ranks are to be found in only the larger cities. Opportunities for advancement are fair for the man with good training and ability. Promotions are given as occasion demands and are based on both seniority and ability. Application for a position should be sent to the chief constable of the police force of the city in which employment is desired. The number entering the force depends on the need for new men.

The working day is approximately 8 hours in length. If overtime is required, the policeman may be paid in money, by an extended holiday or by some other form of recognition. Policemen may take turns in observing public holidays. Constables receive 2 weeks' annual vacation, with pay.

Other Features of the Occupation. The retiring age for policemen varies from 55 to 65 years of age, depending on the force. Some police forces have pension plans. Members of the Calgary and Edmonton forces can obtain group insurance against sickness and death. Both employer and employee contribute to the premium. In Edmonton the sick benefit includes $10 a month plus full salary, and the death benefit is $1,000 for members of the force who have served less than 3 years, and $1,500 for the others.

Wages continue for 2 weeks if policemen are off duty because of sickness, and indefinitely if they are injured while on duty.

Police are prevented from engaging in any profitable pursuits during their leisure hours, but they may use them for any avocation or hobby that they prefer. The work of the policeman is very necessary from the standpoint of society. In 1935 there were 5,231 policemen in 161 Canadian cities of population 4,000 or over. The following table gives some statistics for these police forces.

TABLE LXXIV

POLICE STATISTICS OF CANADIAN CITIES AND TOWNS, 1935

	Cities and towns No.	Population	Police No.	Population per police No.	Arrests per police No.
Alberta	4	186,747	195	958	17
Canada	161	4,432,750	5,231	847	18

Source: Canada Year Book, 1937.

The duties of the policeman are so numerous that he has been called the "handy man of the constitution." The work is not considered monotonous, and, indeed, originality and initiative are frequently required. The effects on the health and nerves are, in most cases, beneficial.

Recreational Service

There were 604 men and women gainfully employed in recreational service in Alberta in 1931. Of these 61.7% were wage-earners. There were 204 men gainfully employed as owners and managers of other than theatres and theatre agencies, and only 43 of these were wage-earners. Practically all the men in the other branches of recreation were employees.

Table LXXV shows employment conditions in Alberta in 1931 for these employees.

TABLE LXXV

Male Employment and Unemployment in a Few Branches of Recreational Service in Alberta in the Year 1931

	Employees No.	Losing time No.	Losing time %	Time lost %
Managers—theatres and theatre agencies	35	2	6	4
Managers—other agencies	41	16	39	16
Showmen, sportsmen	60	17	28	17
Stage hands, projectionists	105	17	16	6
Ushers	30	12	40	16

Source: Volume VI, 7th Census of Canada, 1931.

The following table indicates the average earnings and number of weeks of employment for male employees in Calgary and Edmonton in 1936.

TABLE LXXVI

Average Earnings and Weeks of Employment for Male Wage-Earners Engaged in Recreational Service in Calgary and Edmonton in the Year Ending June 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Managers—theatres and theatre agencies	32	1,840	42
Managers—other entertainment	21	1,210	40.2
Showmen, sportsmen	40	1,010	25.9
Stage hands, projectionists	60	1,425	44.6
Ushers	36	445	44.5

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Projectionists

The 1931 Census listed 317 individuals as being gainfully engaged in the moving picture industry in Alberta. There were 105 stage hands and projectionists classified as wage-earners. Only 6% of the working time of these latter employees was lost through unemployment.

Qualifications and Training. Projectionists must be reliable men with good vision and hearing. Projecting is a good occupation for persons who have difficulty in meeting the public. Weak, nervous, highly-strung individuals do not usually develop into good operators, Any individual who is subject to pulmonary diseases is advised not to choose this work for his occupation.

As in so many occupations high school education is considered useful but not necessary. Theoretical knowledge of electricity, optics and sound recording and reproducing systems is necessary and can be obtained from correspondence courses. Practical work in the projection room should be taken along with the theory, by acting as an understudy to an operator in a small town theatre. Three different examinations can be written. Success in these gives, in turn, third, second and first class certificates. A fee of $25 is charged for the last examination, which, if passed, gives the holder the right to operate a machine in a city theatre. About 1 year is usually required to gain the third class certificate. From 3 to 4 years of work and study are usually necessary before one is ready to write the final examination for the first class certificate. In applying for work after training, the operator should include letters of recommendation from the projectionist and the manager of the theatre in which the training was obtained. This experience is of very little use to an individual who is forced to seek employment in some other occupation.

Wages. The holder of the third class certificate might receive about $10 a week. Salaries range from $10 to $50 a week and up. As much as $80 a week has been paid in Alberta cities. The average salary received by projectionists in Alberta in 1936 was estimated at about $45 a week. Unions have been organized in some cities, and have had some effect on wages. The rate of pay is determined mainly by the size and class of the theatre and the amount of equipment being used.

Duties. The duties may be roughly divided into two parts: (1) proper projection of the picture; and (2) proper care of the equipment. In more detail the duties include: (1) the inspection of the film in plenty of time before the show in order to have time to do any repairing that may be necessary so that there will be no delays in the projection; (2) making up the schedule for the running time of the show; (3) inspecting all electrical connections and seeing that all motors are in good order; (4) cleaning and oiling the machinery; (5) testing all sound equipment to see that everything is working satisfactorily; (6) testing and repairing any defect in the system so that there will be no interruption in the projection of the picture.

The supply of projectionists is rather large and is increasing while the number of theatres is approximately fixed. Application for employment should be made to the secretary of the union or to the manager of the theatre.

Hours. The hours are fairly regular, each projectionist working about 6 hours a day. This seems to be about as long as a man can work, as it is very trying on the nerves. It is only infrequently that overtime is required. The work is carried on for 6 days a week and always includes public holidays. Pay is discontinued during annual holidays, which are arranged by agreement between the employees and the manager. Advancement to better paid positions depends mainly on ability, but the chances of promotion are small because of the fact that the field is very limited with respect to the higher paid positions. As a rule once a man has secured employment he is reasonably sure of his position as long as he does his work in a satisfactory manner. There are two unions in Canada which may uphold the rights of employees. The only restriction on the number entering the occupation is the ability to pass the examinations as required by legislation.

Other Features of this Occupation. There is no specific compulsory retiring age. Pay is stopped if an operator is forced to lay off work by sickness. Frequently, however, another operator will work for a sick partner.

An operator seems to obtain a certain amount of inner satisfaction and pride from the fact that he is performing a useful task for society. He plays a large part in the education and entertainment of the other members of his community.

Theatrical employees are recognized as being very congenial and generous individuals, so that working conditions should be pleasant. The duties are, to a certain extent, repetitive, but are not usually termed monotonous. No restrictions are placed on an operator's political or religious activities.

The following table indicates the importance of the Motion Picture Industry in Canada and Alberta. Notice that there has been a rather significant decline in almost all aspects of the industry since 1930, but that conditions in 1935 showed some slight improvement over 1934.

TABLE LXXVII

Motion Picture Statistics for Canada and Alberta, 1930, 1934, 1935

	Theatres No.	Employees Male No.	Employees Female No.	Salaries and wages $
1930 Alberta	85	307	72	428,700
Canada	910	4,641	1,502	6,946,700
1934 Alberta	80	320	65	303,500
Canada	799	4,251	1,362	4,289,400
1935 Alberta	85	336	67	337,200
Canada	856	4,571	1,454	4,826,600

Source: Canada Year Book, 1937.

It is interesting to note that the average salaries and wages for Alberta employees were practically the same as those for Canadian employees in 1930. However, in 1935 the average earnings of Alberta employees were higher than were those of employees in Canada. Annual earnings decreased on the average $295 in Alberta from 1930 to 1935.

Resort Occupations

Travelling in the Mountains

Qualifications and Training. There are a few tea rooms and ski camps in Alberta resorts which offer worth-while employment as managers or opportunities as owners. This is a new field and is in a state of growth. A technical school education would be very useful for any boy desiring to enter this work. Household economics would be very valuable for girls. A business course would be useful for owners and managers.

Affability, honesty, reliability, temperance and the ability to make friends are very necessary traits if one is to make a success of this type of employment. Individuals with a retiring nature or who are too abrupt in speech and actions should give the matter careful consideration before choosing this work. A neat appearance is almost necessary for success.

Work and Wages. The main thing to note about this occupation is its seasonal character. These occupations offer employment during only a few months of the year. For this reason it is very often difficult to get first class help. The following table indicates what resort institutions pay to their employees: (in all cases the employees are also given board, and room and retain any tips.)

Waitresses	$25 a month
Chambermaids	$30 a month
Kitchen helpers	$30—$ 50 a month
Managers	$50—$ 75 a month
Cooks	$75—$140 a month

The hours are fairly regular; the working day is usually 8 or 9 hours in length, for 7 days a week. Public holidays are not observed. The chances of advancement are very limited unless one has the capital with which to become an owner. The work is not usually considered monotonous. The need for originality is mainly confined to the management.

Personal Service

Approximately 7% of all gainfully occupied men and women in Alberta in 1931 were engaged in personal service. About 38% of all gainfully occupied women were in this work, and 3.2% of the men. Of these men about 72% were employees; of the women 84% were wage-earners. From 1911 to 1931 the number engaged in personal service increased 92.6%, while the gainfully occupied population increased 77.2%.

These workers sell their services much as a merchant sells his goods. As society is demanding more of these men and women, it seems that there should be an increase in employment opportunities. It would be desirable to

TABLE LXXVIII

EMPLOYMENT AND UNEMPLOYMENT IN SOME OCCUPATIONS OF PERSONAL SERVICE IN ALBERTA IN 1931

		Wage-earners			
	Gainfully employed No.	No.	Losing time No.	Losing time %	Time lost %
Male					
Restaurant, and cafés	948	56	7	13	7
Waiters	1,059	1,022	334	33	14
Bellhops, porters	294	294	88	30	13
Janitors, sextons	1,033	1,028	135	13	6
Barbers	973	314	100	32	16
Cooks	1,591	1,564	722	46	26
Undertakers	76	28	4	14	6
Female					
Waitresses	1,062	1,043	447	42	18
Hairdressers	449	221	63	28	14
Cooks	447	407	109	27	13
Domestic servants	6,977	6,596	1,641	25	12
Elevator tenders	18	18	4	22	8
Housekeepers, matrons	2,305	1,956	306	16	8

Source: Volumes VI and VII, 7th Census of Canada, 1931.

discuss several of these occupations, but it will be possible to deal with only two of them. Of these services, barbering and beauty culture are possibly the nearest allied to the professions, and so we shall describe these two occupations.

Table LXXVIII indicates a few of the occupations to be found in personal service, and the condition of employment in these occupations in Alberta in 1931.

TABLE LXXIX

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR WAGE-EARNERS ENGAGED IN PERSONAL SERVICE IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Male			
Barbers	186	485	36
Cooks	591	353	24
Elevator tenders	110	706	46
Janitors and sextons	597	830	47
Waiters	421	595	37
Female			
Hairdressers	186	430	36
Cooks	89	356	36
Domestic servants	2,682	176	39
Housekeepers	420	257	40
Waitresses	498	312	36

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Barbers

There were 314 barbers classified as wage-earners in Alberta in 1931. Approximately one third of these were unemployed during the year. They lost 16% of the possible working time of all barbers and 50% of their own working time.

Work. The barber does such work as cutting the hair, trimming the beard, shaving, shampooing, singeing and giving facial massages and scalp treatments. It is the case, however, that in the last few years much of this work has been lost. For instance, the production of the safety and electric razors has reduced the number of shaves given by barbers. Depression times have seriously affected the amount of money spent in barber shops, quite apart from the money spent for the actual hair cut or shave, which formerly made but a minor contribution to the barber's earnings.

Qualifications. The barbering business requires its members to be clean, neat, reliable men, with pleasing personalities. A barber must have steady nerves and good health and eyesight. He is required to spend many hours each day on his feet. It is best to begin to learn this trade soon after one is 18 years old and certainly before becoming 30 years of age. Government examinations were given to barbers in 1936. The barber is required to be able to use electric clippers, hand clippers, razors and certain electric appliances.

Training. There are two methods of learning the barbering business. Many individuals now attend barber schools for a period of from 6 to 9 months. There are three such schools in the Province, two in Edmonton and one in Calgary. The fees are about $60 and tools and equipment cost about $25. The other method is to serve an apprenticeship under a barber for a period of about 3 years. As an apprentice the young barber keeps the shop clean, hones the razors and such like. He is allowed, under the barber's supervision, to cut the hair and give shaves to any friends who are willing to trust themselves to his care. Later he shaves and cuts the hair of the other barbers in the shop. In this way he gets a training in the performance of a barber's duties, and gradually acquires the necessary skill. An apprentice may be paid $7 a week during the first year, $10 during the second and $15 during the third year. After training he may find employment in his own shop or as an employee in a barber shop, on steamships, railways, or in hospitals.

Earnings. After training, the barber as an employee works for about $15 a week and a commission of 60% of his "takings" over $23. His total earnings may vary from $15 to $40 a week. The Barbers' Union has been very effective in obtaining minimum wages and rates of commission, and in regulating the number of barbers entering the occupation. The union charges a membership fee of $1.50 a month. This provides a $10 a week sick allowance payable after the first week of sickness and a death benefit varying in amount from $100 to $500.

The duties of the barber are the same day after day. However, he is dealing with new customers almost daily and this fact tends to relieve the work of any monotony by giving him an opportunity to discuss the latest happenings in the political field or in the world of sport. A barber's success depends to a great extent on his ability to meet people and on the impression that he makes on them, both by his work and his personality.

As in so many other occupations the supply exceeds the demand, but it is likely that a man with a good reputation as a barber should be able to obtain employment through the secretary of the Barbers' Union.

Hours. Union hours in the cities are from 8 a.m. to 6 p.m., except on Saturdays, when the hours are from 8 a.m. to 7 p.m. In country towns the hours are very irregular and the barber is apt to be called on to work at almost any hour of the day or night. Barbers close their shops on public holidays. Employees may have annual holidays, during which time they would not receive pay.

In the larger shops the oldest man in point of service is given the best chair, that is, the one which offers the best chances of getting work, for this affects the amount of his commission.

City barbers have ample time and opportunity for engaging in some activity in which they are particularly interested. The same can not be said of the barber in small towns and villages, because of the irregular hours. There are no restrictions placed on their political, social or religious activities. The effect of the work on health and nerves varies with the individual. The work is inclined to be somewhat tiring on the eyes. There has been considerable improvement in the health of barbers since they have had union hours.

Beauty Parlor Operators

Qualifications. Since beauty parlor work requires personal contact with other persons, and since an operator's earnings depend on her commission, an individual should not consider entering this vocation unless she finds it easy to meet the public. A neat, personal appearance and the ability to carry on an intelligent conversation tend to instil confidence in customers and so help to build up a clinetele, bringing back old customers and attracting new ones to the parlor. A pleasing, sympathetic personality is very necessary if one is to be successful in this occupation. Skin diseases, foot trouble or general untidiness and carelessness as to personal cleanliness would make it very difficult to be successful. It is best to enter the vocation between the ages of 18 and 30 years. Entrance is not restricted by license in Alberta. British Columbia sets a very strict examination for beauty parlor operators. The work is very hard on the nerves, so that only girls with good health and nerves should think of entering this occupation.

By Courtesy of Leroy Beauty Salon, Calgary and Edmonton.

A CORNER OF A MODERN BEAUTY SALON

Training. Operators should have as much high school education as possible. Girls who have some knowledge of bookkeeping and business management usually receive greater consideration when applications are being considered. Of course, such knowledge would be very valuable for an operator of her own parlor.

There are few highly recommended beauty parlor schools in Alberta. Training is best obtained in British

Columbia or in the United States. It is generally agreed that the American schools turn out better graduates than do Western Canadian schools. Fees vary from $50 to $150 a course. Books and equipment cost about $20.

Earnings. Trained operators receive between $14 and $30 a week. They are usually engaged on a combination of salary and commission.

The following table outlines the minimum wage law as applied to members of this occupation:

1st month	nil
2nd, 3rd months	$6 a week
4th, 5th, 6th months	$8 a week
7th, 8th, 9th months	$10 a week
10th, 11th, 12th months	$12 a week

Many beauty parlor operators are employed only half time because of the great supply of, as compared with demand for, these operators.

The Work. Beauty culturists are required to give shampoos, facial and scalp treatment, manicures, permanent waves, marcels, water and finger waves, as well as to tint and dye the hair. Some of the parlors also give violet ray and certain other electrical treatments. Operators may become owners or managers of parlors.

After training, individuals may find employment in beauty parlors, as travelling salesladies for cosmetics and beauty equipment or as travelling experts giving instruction to operators. In general, girls with specialists' training are in a better position to obtain employment. Application for work as an operator should be sent to the owner or manager of a beauty shop. Some training schools provide positions for their graduates.

Hours. Operators work from 9 a.m. to 6 p.m. daily, except Saturdays, when they are required to be on duty until 9 p.m. They have Wednesday afternoon off work. As a rule the hours are regular, except that a little extra time is sometimes necessary to complete a job, for which no overtime is paid. Operators do not work on public holidays. They may have annual holidays without pay.

Alberta operators are not well enough organized to have any effect on salaries, in regulating the number entering the occupation or in upholding their rights. No group insurance is available for members of this branch of service.

Some operators consider the work very monotonous, but others feel that there is a great need for originality and ingenuity. Beauty culturists with an artistic sense are more likely to enjoy the work and to be successful.

Laundering, Cleaning, Dyeing and Pressing

In recent years there has been a considerable increase in the number of employees in these occupations. The 1931 Census listed 791 men and 508 women as gainfully employed in these occupations. Table LXXX gives an idea of employment conditions in Edmonton and Calgary in the year ending June 1, 1936.

TABLE LXXX

AVERAGE EARNINGS AND WEEKS OF EMPLOYMENT FOR FEMALE WAGE-EARNERS ENGAGED IN LAUNDERING, CLEANING, DYEING AND PRESSING IN CALGARY AND EDMONTON IN THE YEAR ENDING JUNE 1, 1936

	Employees No.	Average earnings $	Average yearly work Weeks
Cleaners and dyers	26	373	36
Ironers and pressers	59	420	42
Washing and drying machine operators	18	426	39
Others	159	419	42

Source: Adapted from Census of Prairie Provinces, 1936. Bulletin No. XXVI.

NOTE: The average wage for all male employees, 190 in number, was $526, for an average working year of 31 weeks.

CHAPTER XVI

CLERICAL WORK

The number of men and women gainfully employed in clerical work in Canada practically doubled between 1911 and 1931, and increased practically 1,000-fold between 1891 and 1931. In the same intervals of time the population 10 years of age and over increased respectively 44.2% and 143%. These changes in the number of these workers are associated with the change in industries and trade and commerce and with the fact that big business has found it necessary to keep more accurate records.

Tables LXXXI and LXXXII give an idea of employment conditions among these workers in recent years.

TABLE LXXXI

EMPLOYMENT AND UNEMPLOYMENT IN A FEW BRANCHES OF CLERICAL WORK IN ALBERTA IN THE YEAR 1931

	Employees No.	Losing Time No.	Losing Time %	Time Lost %
Male				
Stenographers, typists	216	64	30	16
Bookkeepers, cashiers	1,942	373	19	9
Others	4,153	610	15	7
Female				
Bookkeepers, cashiers	898	163	18	8
Office appliance operators	130	27	21	10
Stenographers, typists	3,662	765	21	11
Others	726	77	11	4

Source: Volume VI, 7th Census of Canada, 1931.

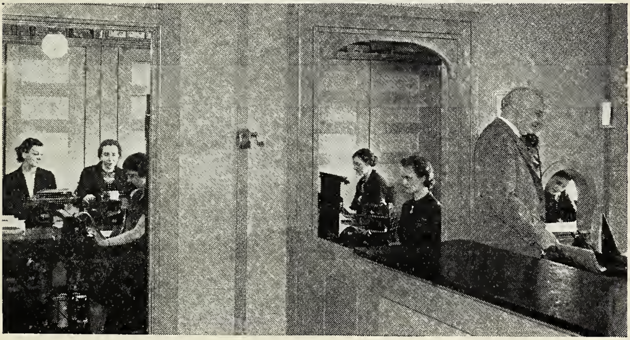
TABLE LXXXII

Average Earnings and Weeks of Employment for Wage-Earners Engaged in Clerical Work in Calgary and Edmonton in the Year Ending June 1, 1936

	Employees No.	Average Earnings $	Average Yearly Work Weeks
Male			
Bookkeepers, cashiers	787	905	41.0
Stenographers, typists	156	706	41.2
Other office clerks	3,319	1,090	45.8
Female			
Bookkeepers, cashiers	490	737	45.9
Office appliance operators	107	680	41.7
Stenographers, typists	2,613	677	42.8
Other office clerks	578	800	46.2

Source: Census of Prairie Provinces, 1936. Bulletin No. XXVI.

Stenographers and Typists



A Small Suite of Offices

There were 3,878 wage-earners classified as stenographers and typists in Alberta in the 1931 census; of these 3,662 were girls and women. This group has the third greatest number of female workers, being third to Domestic Service and Teaching, in which occupations there were 6,596 and 4,407 women respectively.

Training and Qualifications. Girls who are desirous of entering this branch of clerical work should complete 4 years of high school education. Then they should take a course, requiring from 1 to 3 years, in stenography, including bookkeeping, from a commercial high school. This training may also be obtained from business colleges offering courses which require 6 months or more to complete. The courses that may be taken include stenography, typing, bookkeeping, office practice, business English, rapid calculation, spelling, penmanship, and the use of office machines.

A stenographer should have a pleasant disposition and a co-operative spirit. She must be punctual, honest, reliable, and discreet in regard to office affairs. A neat appearance and good health and nerves are important for stenographers. Most stenographers enter the occupation soon after they have become 18 years of age. As a general rule applicants are required to take a formal examination as a test of ability. A diploma or written recommendation from the school attended, should be included with the application for work. Personal interviews are generally required. The usual initial salary at present is about $50 a month; experienced stenographers may receive $150 a month, although the average is about $75. Generally there is no definite rate of advancement or increase in salary, although some larger firms may have a schedule in operation. Stenographers have no organizations to prevent over-crowding, to influence wages, or to uphold their rights.

The Work. The duties vary with the office and the position in the office. In a small office the stenographer would be required to do all of the following work.

In larger firms the work would be departmentalized. (See also Chapter IX.) The following list gives a general idea of a stenographer's duties: opening and sorting mail, taking dictation and typing, making statistical tables and reports, sealing, stamping and posting mail, filing, answering the telephone, receiving visitors, answering some correspondence without dictation and using the comptometer and other office machines.

More responsibility and less routine work are required as one advances to the better positions in larger firms. One of the most responsible positions is that of private secretary, who must be very experienced and capable of relieving the executive of some of the more minor details of the work. The more advanced the position, the greater is the need for initiative.

Where may employment be found? Practically all business firms must have their secretarial staff; so employment may be obtained in wholesale and retail stores, banks, civil service, professional offices, financial concerns, brokerage offices, offices of departmental stores, film corporations, railway and steamship companies, and public utilities departments. A good stenographer can usually obtain a position; the mediocre stenographer has difficulty obtaining work even in good times. Many firms prefer to engage an inexperienced girl, so that they may more easily train her to their own routine. Application for employment should be made to the personnel officer or to the office manager.

Hours. The usual hours are from 9 to 12 noon and from 1.30 to 5 p.m., for 5½ days a week. Overtime may be required under certain conditions. Public holidays are observed and stenographers are usually given an annual holiday of about two weeks with pay. A change in government does not usually affect employees engaged in governmental work. Some offices insist on employees retiring between the ages of 55 and 60 years. Only in the larger offices is there a pension plan for employees; the amount of the pension varies greatly from office to office. Some firms provide insurance as protection against accident, illness and death. The premiums are paid by deductions from the salary. Wages may continue for varying lengths of time when an employee is away from work because of sickness.

The stenographic department is a very important branch of any business or industry. It establishes and maintains the business contacts of the firm by means of written communications. There is a certain amount of monotony, especially in the less desirable positions, but with advancement the duties become broader, and more initiative is required. Very little travelling is necessary for most stenographers, except possibly for the private secretary. The efficient stenographer should feel no undue strain from the work. In fact there is less nervous strain from this work than is the case in many other vocations. It is true that the beginner is probably working under a certain amount of tension.

Cashiers

Qualifications. This is essentially a woman's occupation, in which employment is most easily obtained for the first time between the ages of 17 and 30 years. Different firms have different academic requirements, but, in any case, the girl with the greater amount of high school education will receive more consideration when an appointment is being made. Girls seeking to become cashiers should have good health, vision and hearing; a neat appearance is also a decided asset for cashiers. Cashiers must be affable, even-tempered, courteous and patient. They must be accurate, reliable and honest, and be able to co-operate with the other employees.

Pay. A beginner usually starts work at from $7 to $12.50 a week, doing such minor work as wrapping parcels, sorting bills into different denominations, checking sales bills under supervision until she has learned the store routine. If she shows the proper ability she may become a cashier when an opening occurs. The minimum salary payable to a cashier is $12.50 a week and ranges up to $35, although the average salary given to an experienced cashier is about $14 a week.

Work. A cashier might have a great variety of work to do, depending on the size of the firm for which she is working. In some cases she may be required to wrap parcels, receive sales checks and money, make change and balance accounts. She collects the loan from the cash office each morning, checks it and arranges it in the till. After closing hours she does up the cash and returns it to the cash office along with the loan. At times she may be required to check sales and transactions in various departments, and act as an information desk. The duties are largely routine in nature. Advancement to the senior positions is not regular and depends upon ability and seniority. In the larger firms this would mean an appointment to the cash wicket where the sole duty is the handling of the cash. Girls with this training can utilize it in seeking employment in theatres, hotels, restaurants and various other business concerns. As a rule there is always an adequate supply of cashiers, except at rush times such as are experienced at Christmas. Application for employment may be made to the personnel director, employment manager or superintendent of the firm. Cashiers enjoy regular hours, except possibly at the end of the month when overtime, with pay, is often required. They usually work from 9 a.m. to 6 p.m. for 44 hours a week. An annual holiday of 1 or 2 weeks with pay is usually given to these employees.

Advantages and Disadvantages Found in this Occupation. Members of this occupation have no unions to attempt to regulate the hours of work, or the rate of pay. A change in management does not usually have any effect on their positions. In some of the larger firms the employees have organized private clubs, the joining of which is optional. The clubs give some assistance to their members in case sickness forces them to lay off work. In return for these benefits the members pay a small fee.

Many large firms maintain libraries which their employees are encouraged to use. The employees' clubs are responsible for providing certain recreational activities such as golf tournaments, bowling, staff dances, and other entertainment and sports. As a general rule one's associates are very congenial. Little travelling is required of cashiers. The work is often found to be somewhat trying on health and nerves.

Bookkeeping

Training and Qualifications. Students who desire to become bookkeepers should get as much academic education as possible and then take a commercial course. A bookkeeper requires accuracy, patience, neatness, a routine temperament, unwavering attention to small details, and only a small amount of initiative, except in the more responsible positions. That individual who has a neat appearance, is physically fit, and has good eyesight and clear speech is at a distinct advantage in seeking employment and in retaining a position. Training as a bookkeeper should commence soon after one is 19 years old and certainly before one is 30. Early commencement of training is an important factor in being able to advance to the better positions. Letters of recommendation from three responsible parties are usually required from applicants who desire to become bookkeepers.

The usual initial salary varies from $500 to $700 a year. Earnings of experienced workers range up to $3,000, but average about $1,500. There is no definite rate of increase in salary. Promotion depends on ability and economic conditions. Bookkeepers have no unions for regulating wages, for checking the number entering the field, or for upholding the rights of employees in case they may have a dispute with the employers.

The Work. Duties vary with the department to which the bookkeeper is attached, and may include handling cash and collections. Advancement brings added responsibilities and more specialized duties. Good bookkeepers need to know the general theory underlying the practice of bookkeeping, methods of journalizing, classifying and adjusting entries, closing the ledger and making out statements. They must have a knowledge of commercial and financial practice, operating conditions for corporations and partnerships, definitions of terms used in corporation accounts, and work-sheet adjustments. An accurate knowledge is really more important than speed. Most of the work is routine in nature but there are daily changes in circumstances.

Opportunities for Employment. Training thus obtained may be used in various commercial activities and banks. At present there are practically no vacancies, but it is expected that this condition will be altered within the next few years. The occurrence of vacancies depends to a great extent on economic conditions. Larger centres offer the greater opportunities both in the matter of finding employment and in obtaining advancement.

The working day is usually 8 hours, but overtime, without any extra pay, is frequently required. Five and one-half days constitute the working week. Public holidays are always observed and most employees are given from 2 to 3 weeks' annual vacation with pay.

Only the very large institutions, such as banks, have a compulsory retiring age, or offer pensions and group insurance to their employees. Pay may continue if an employee is forced, by accident or sickness, to lay off work. Bookkeepers have complete freedom with respect to political and religious activities. Provided that the individual takes normal care of himself there should be no harmful effects on health and nerves as a result of engaging in this occupation.

CHAPTER XVII

THE CIVIL SERVICE

THE LEGISLATIVE BUILDING, EDMONTON

Prior to 1882 appointments to the Civil Service were made directly by the Government. In that year a Board of Civil Service Examiners was appointed to examine candidates for Civil Service appointments. The actual appointments were made by the Government. In 1908 a Civil Service Commission was appointed and charged with the organization of the Inside Civil Service (i.e. the Civil Service in Ottawa), and with the holding of examinations for the Outside Service in order to obtain lists from which selections could be made by the various departments. In 1918 the principle of appointment after open competition was applied to the Outside as well as the Inside Service. Now a man is given a job on the basis of his fitness for the work, and not because he is a party man.

As a result the Civil Service Commission is setting examinations for those who desire to enter such branches of the service as audit accountant, canal employees, custom's officer, junior draftsman, junior engineer, letter carrier, statistician and so on. Successful candidates are placed on the eligible list for a period of two years. If they have not received an appointment by that time they must write another examination in order to be placed again on the eligible lists. The character and record of each applicant is investigated by the R.C.M.P.

The aim of the commission is to test the ability of the applicant to perform certain duties, as well as to obtain some indication of capacity to perform more difficult duties and to assume higher responsibilities. There has been a steady increase in the number of appointments to be made and in the number of occupations for which examinations are required. There was a decided increase in the number of persons applying for work in 1936. Applications were received from 60,752 persons; 948 examinations were held and 35,056 applicants were tested. During the year, 5,895 persons were engaged. Of these 786 were placed in the permanent list, 162 in seasonal occupations and 4,947 in temporary positions for varying lengths of time. Information regarding examinations may be obtained by writing to the Civil Service Commissioner, Ottawa.

The work of all new appointees is reported to the Commission with the idea of retaining only those who are capable of giving service, and show reasonable promise of increased efficiency. Promotion is based on efficiency and fitness, although length of service does receive some minor consideration.

Office boys are recruited by examinations and are paid $35 a month. They are given every opportunity to advance to clerical positions without too long a service as office boy. University graduates are being appointed to many of the better clerical positions, provided that no junior employees are ready to be promoted to those positions.

It will not be possible, nor is it necessary to deal with the training necessary for employment in the Civil Service. Specific educational requirements for major professional classes of work have already been treated. It is estimated that 80% of the positions for which examinations are held do not require specific academic training. Tradesmen must be qualified as for employment elsewhere. Ability and aptitude as shown by the examination are the determining factors in obtaining these positions.

In the lower ranges, and particularly for clerical work, the government wage scale is much the same as that found in private industry. However, salaries in the executive and higher administrative positions are considerably less than those found in private enterprises. On the other hand it is necessary to note the security of tenure enjoyed by civil servants, their retiring age, which is usually 65 years of age, and their pension plan. They are of course restricted in their political activities, but not in their social and religious life.

Government work may be roughly divided into 4 main branches as shown below. In each case a few typical occupations to be found in each branch are indicated. The classes of government service are:

(1) Professional and scientific, which include such employees as assistant architects and chemists, library assistants, student dietitians and junior entomologists.

(2) Sub-professional, including such employees as architectural draftsmen, graduate nurses, draftsmen, mechanical foremen.

(3) Clerical, administrative and general business, including stenographers, office appliance operators, clerk of works, inspectors of civil aviation and collector of customs and excise.

(4) Custodial, labor and mechanical, including aircraft mechanics, office boys, grain truckmen and caretakers.

The following table indicates the number of employees in federal and provincial government service in Canada in 1931.

TABLE LXXXIII

EMPLOYEES IN GOVERNMENTAL SERVICE IN CANADA IN 1931

	Male	Female
National defence	5,965	117
Postal service	16,029	3,157
Police service	2,575	69
Other departments	28,417	9,131

Source: Volume VII, 7th Census of Canada, 1931.

Provincial Government

The Provincial Government, then, also requires a staff of men and women which is very comparable to the Dominion Civil Service. It is unnecessary to add anything to what has already been said about the employees of the Dominion Government.

Municipal Government

Cities, towns and villages require the services of various types of workers, from professional to unskilled laborers. Naturally the larger centres offer the better opportunities for employment and advancement. The following table indicates the number of municipal employees in Canada in 1931.

TABLE LXXXIV

EMPLOYEES OF MUNICIPAL GOVERNMENTS IN CANADA, 1931

	Male	Female
Fire department	4,780	7
Police	6,676	145
Water service	2,890	38
Other departments	33,642	2,712

Source: Vol. VII, 7th Census of Canada, 1931.

CHAPTER XVIII

THE EDUCATION OF EXCEPTIONAL CHILDREN

A SIGHT-SAVING CLASS

The group of children commonly known as exceptional or atypical include the following types: (1) the deaf and hard-of-hearing; (2) the blind; (3) the crippled; (4) the speech defective; (5) children of lowered vitality; (6) the gifted; (7) the mentally retarded; and (8) the emotionally or socially maladjusted. It is generally recognized by educational authorities that exceptional children require special training and education, but as yet it has not been possible to do very much for the members of some of the above classes of exceptional children in Alberta. In this chapter it will not be possible to give detailed information about the education of each of the above types but we will note what has been done in the way of education for some of them.

Gifted Children

Until fairly recently it was not believed that many of these children required special care. For example, it was thought that gifted children were well able to take care of themselves and successfully to carry on the work of the school with little guidance from the teacher. Now, however, it is recognized that these children do require attention if they are to attain their fullest possible development. As yet very little has been done in Alberta for these gifted children, but in certain other provinces and especially in the United States, these children have been carefully studied and provided with special educational opportunities.

Mentally Retarded Children

Not many individual school systems in Alberta have done very much for mentally retarded children. There are a few classes in the Province which attempt to offer special training for these pupils. Seven rooms were provided in 1936 by the Calgary School Board, and 8 by the Edmonton Board. The educational aims for these children are much the same as for any other group of children. These are to teach the individual to live better, to teach him to use all his capacities and to become a useful member of society. He should be educated for some particular participation in the world's work; his capacities should be discovered. Many of them can be taught to do useful manual work. Work of the academic type is reduced to a minimum, for these children find it difficult to master the material of the more formal school subjects.

Physically Handicapped Children

It is urged that physically handicapped children have a right to as vigorous a body as human skill can give them. They are entitled to an education so adapted to their handicaps that they can be economically independent and one that will give them the chance of leading the fullest life of which they are capable. In accordance with this philosophy the problem of the education of these children is, in many sections of the country, receiving special consideration. It has been found that many of these children can be trained and educated in such a way that they may do useful tasks for society and in so doing are enabled to lead happier lives. In school systems which offer special opportunities for these children the regular academic courses are usually offered, along with certain types of industrial work, adapted to the physical abilities of each individual pupil. Such activities as weaving, sewing and toy-making are offered in many schools. This training is not yet offered to any great extent in Alberta schools.

Deaf and Hard-of-Hearing Children

Section 5 of *the Department of Education Act* puts the responsibility for the education of deaf and blind children on the Provincial Government through the Minister of Education. Instead of building special schools for these students, the Alberta Government sends them to schools in other parts of the Dominion. The Government pays the tuition fees and the cost of maintenance at the school. Parents are expected to pay for the necessary clothes and incidental expenses. The Government will, if necessary, also pay transportation expenses.

The schools to which these children are sent will take only children who are otherwise physically and mentally normal. They may make some exceptions to this rule for a child who is only slightly handicapped physically, but they will not accept children who are mentally inferior.

American investigations indicate that only about 7%

of deaf and hard-of-hearing children are receiving any special consideration in the school system. The real tragedy of this is only grasped when one realizes how much can be done to prepare these children for taking an active part in the affairs of society. Such children require special care if they are to lead normal emotional lives, free from suspicions, sensitiveness, resentfulness and aloofness, and if they are to lead normal, happy lives. Early detection, followed by proper care, will often prevent total loss of hearing. Of course, the hearing of seriously deaf children cannot usually be restored or improved by medical care.

Deaf and hard-of-hearing persons have the same right to economic independence, social contacts and privileges as have normal individuals. Hence society must provide educational and vocational opportunities adapted to their handicaps and so permit them to become self-supporting. Until fairly recently it was thought that such a person was destined to a life of unemployment, or was at least restricted to the lower classes of service in a very limited group of occupations. This is now realized as being very far from the truth. Proper education and training will permit these children to engage in a wide variety of occupations. Such persons are engaged as teachers of the deaf, printers, clerks, farmers, machine operators, chemists, photographers, draftsmen, library workers, shoemakers, painters, seamstresses, cabinet makers and janitors. A recent report of the United States Department of the Interior, Office of Education, indicated that deaf and hard-of-hearing persons were to be found in more than 250 occupations.

A total of 74 pupils from Alberta are attending Canadian schools for the deaf. Sixty-six of these are attending the Manitoba School for the Deaf at Winnipeg. Three pupils attend the School for Deaf Boys, Montreal, and three the School for Deaf Girls, Montreal. The boys' school is one of the finest and largest of its type on the continent and has an enrollment of 298. The rest are at the Vancouver School for the Deaf and Blind. These figures are for the year 1937-38.

In these schools, children are given a general education along with definite vocational instruction. Education is carried on by both the oral and manual methods. Manual instruction includes both writing and finger spelling. Deaf and hard-of-hearing children may thus be prepared to take an active part in the world's work, and in so doing may lead an active, happy life.

Blind Children

Similar schools are provided for blind children. Again it must be realized that such children are not necessarily restricted to a wholly dependent, sedentary life. With proper education many of these children can be trained to engage in socially valuable activities from which they can derive considerable satisfaction. There are 18 blind children from Alberta attending special schools elsewhere in the Dominion. Seventeen of these attend the Ontario School for the Blind at Brantford. One pupil is attending the Nazareth Institute for the Blind at Montreal.

These schools follow practically in its entirety the program of studies set up by the Department of Education of the various provinces in which the schools are located. In addition to the regular academic subjects, blind children may be taught piano, organ, instrumental and vocal music. Some pupils are taught piano tuning, chair caning, broom and brush making, weaving and simple carpentry. More and more attention is being given to training these pupils for a specific vocation. Typewriting and general business are taught to those who desire to enter business

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A typical concession stand operated by a blind person. This type of employment is very suitable for sightless people with a desire for business. The earnings are sufficient to provide an adequate living.

It is traditional that blind people are basket and broom makers. The young man shown in this concession stand was himself proficient in these handicrafts. The trend in modern times, however, is breaking down old traditions because, in the first place, handicrafts are no longer remunerative enough to enable a sightless person to earn a living and again not everyone is naturally qualified to make a basket or a broom. Other avenues of employment, therefore, are constantly being sought in industry and business.

Welfare workers for the blind are keenly aware that unless a sightless person is given a variety of opportunities, chances for him to earn his livelihood are indeed limited.

occupations. There are over 160 blind men and women employed throughout Canada in various industries and offices. There are also about 250 engaged in the operation of concession stands. Operators of these stands are given a course in practical business to enable them to manage the stand in a profitable manner. Some blind boys and girls are being given courses in poultry raising and bee-keeping.

In certain centres the Canadian National Institute for the Blind employs what are known as home teachers for the pre-school child and for those who lost their sight after leaving school. This is a valuable training for the pre-school child in that it prepares him for school life. These home teachers and executive officers of the Institute visit the homes of the blind and teach them Braille or "moon-type." Similar work is also carried on at the headquarters of the Institute. Books in Braille may be obtained from a library in Toronto and from the libraries of the Institute.

Home teachers teach certain arts, music, knitting, crocheting, leather work, caning and rubber-mat making. (These mats are made from old rubber tires.) The Institute buys these articles, paints them if necessary, and certain other organizations, such as the I.O.D.E., sell them. The Institute also attempts to find employment for blind persons. As yet there have been very few openings in Alberta, but opportunities will no doubt increase as employers realize that a trained blind person can efficiently perform certain types of work.

Two sight-saving classes were in operation in Alberta in 1936. There were 19 pupils in the Calgary class and 14 in Edmonton.

Educational facilities for exceptional children are increasing slowly, year by year. As educational facilities improve and increase, so too will vocational opportunities. Hence we shall find exceptional children making to society those contributions of which they are most capable. As a result, these children will be enabled to live a happy life, in full enjoyment of their rights and privileges.

It might be noted that blind persons of age 40 years or over, are eligible for the regular Dominion old-age pension.

CHAPTER XIX

MEN, MACHINES AND THE FUTURE

It has been truly said that man is becoming more and more dependent upon the machine. Men think that they need railroads, tractors, telephones, plumbing, automobiles, radio, motion pictures, steam heat and air conditioning. Just a few years ago talking pictures took jobs away from thousands of musicians. It is reported that a brick machine has been developed which, under the operation of one man, can make over 40,000 bricks an hour. Candy is now being made, wrapped and boxed without a human hand touching it. A machine has been made which pours the batter for flapjacks on a stove, turns them and puts them on plates which are brought to the machine on an endless belt. It seems that the problem of the machine is a real one. We must learn how to handle it, for factories seem to be taking away our methods of obtaining a living.

Long periods of apprenticeship are no longer required in many trades. Then, too, the machine can do the work of many men. This is a cause of unemployment. However, other factors enter which tend to eliminate some of this unemployment. For example, mechanical feeders for printing presses were adopted between 1920 and 1930. At first this caused much unemployment among printers. However, the industry expanded to such an extent that it employed more men in 1930 than it did in 1920. It seems that a great deal of our unemployment is caused by the closing of factories rather than by the displacement of men by machines.

New inventions may take work from some men, but they make work for others. Stable men, harness and saddlery makers, blacksmiths, wagon and buggy manufacturers and horse ranchers have been displaced by the automobile. But, think of the employment that has been created by this latter invention—chauffeurs, bus drivers, car repairers, service station operators, road makers, painters, rubber workers, retail dealers, travellers, and the many office workers. Radio and talking pictures caused many musicians to lose their jobs, but again recall the many new occupations that have developed in connection with radio and talkies. And now television is being developed. What effect will it have on radio and movies? What new vocations will develop with it? Think of the many workers engaged in the manufacturing of rayon! What will the future bring in the way of changes in styles, materials and making of clothing? Formerly a tailor made a whole suit of clothes by himself. There are 224 separate occupations in the making of a suit in a modern factory. This means that a young man no longer need spend years as an apprentice in order to learn how to make a suit of clothes. Now he, or a young lady, is required to operate a single machine, such as one which makes buttonholes; a skill which can be learned in a very short time.

In the past, the major proportion of workers were engaged in making things. With the growth of machines fewer workers are being employed in production, and more and more in distribution. Formerly the larger percentage of the population lived in rural areas; more and more is it the case that the majority of persons are living in cities. Where will this end? One farmer with the machinery that he has now feeds 18 persons. With more machinery he can, perhaps, feed 20, 30 or 40 persons.

What are the main results of the development of machines and machinery? In the first place we all have comforts and pleasures that were undreamed of even by the wealthiest classes of society 150 years ago. Machines have done much to lighten the housewife's work. Foods may be kept cooler and fresher, thus improving the health of the citizens. Inventions have greatly aided learning. Houses may be kept warmer in winter and cooler in summer. Ventilation and better lighting conditions have greatly affected living conditions in the homes, and working conditions in offices. The standard of living has been greatly raised.

Recent years have seen many changes in occupations. Those entering the vocations in the future will need a good general background of education in order that they may have an interest in art, literature, music, dramatics and athletics. Such interests will give them recreations for their leisure time and protection against the monotony found in many jobs. Again the pre-vocational training should be such that it will develop broad skill so that individuals may more easily transfer from one job to another.

Some of the results of the developments in machines upon the individual worker are as follows:

(1) Changes in the nature of the work. Whereas formerly a worker made a complete article, now he makes but a part of it. This is known as division of labor or specialization.

(2) As a result of (1) much factory work is very monotonous because of the repetition.

(3) The long apprenticeship is no longer necessary for many workers. This fact also robs the workman of a sense of pride in his skill.

(4) Industrial diseases due to lint, dust and lead fumes

have appeared. The machine has also brought many hazards to life and limb.

(5) The older man is losing his work earlier than was the case in the past. Younger men are preferred for many of the high-speed jobs.

Besides the effects we have already mentioned many other changes in our customs and habits can be traced to the machine. Among community and national conditions that have been affected may be included: trade unions, employers' associations, unemployment insurance, old-age pensions, old-age insurance, compensation acts, divorce rates, amount of travelling, proportion of rural to city population, methods of entertainment, farm life, family life and amount of leisure time.

"Why all these changes?" asks Dr. Ogburn in a very interesting pamphlet entitled *You and Machines.* "The Machine, of course! It has taken occupations one by one away from the home and placed them in the factory. First went furniture making, metal working, and soap boiling. Spinning and weaving, also, departed early. Making of men's suits and women's hats followed. Then men's shirts and women's dresses. Baking is now done largely in factories called bakeries. Laundering is done by steam. The canning factory has taken over the preserving of foods. Packing plants handle meats. Quilting is no longer done at home. Restaurants have begun to take over our cooking. It may be that electricity will delay this exodus; perhaps it will bring back some of these activities to the home. Ice, for example, is now manufactured by electricity at home."

What about the machines of the future? Again we quote from Dr. Ogburn's pamphlet. "Few of us stop to think what new inventions will be coming along. An invention usually seems to be an accident; hence, we lay no plans for its coming. Yet, it is certain that there will be more inventions in the next twenty-five years than there have been in the past twenty-five. During the ten years ending in 1890, 208,000 patents were granted. During the next ten years, 221,000; in the following decades 314,000 and 384,000; and in the ten years ending 1930, there were 423,000 patents. Every ten years has seen more and more patents.

"When your father was your age there were very few telephones; now there are 17,500,000 of them. He probably never heard of a moving picture. Twenty-five or thirty years ago one hardly ever saw an automobile in the United States—now we have one to every three grown persons. Thirty years ago there was some talk of flying, but only 'cranks' took it seriously. No one ever dreamed of talking through the air with an explorer at the South Pole. There was a saying that you couldn't make silk from a sow's ear; so naturally no one thought that you could make silk stockings from pieces of wood. So within thirty years, great inventions and machines have changed the face of the world.

"In the next thirty years what new inventions and machines will be developed? No doubt, you will see more and more artificial climate manufactured. We can now make any kind of climate we want. Houses cooled in summer, in the south and in the tropics, may be expected; and artificial sunshine provided for northern winters. Night more and more will be turned into day so that we may work and play outdoors. No doubt, we shall be able to see an explorer at the South Pole as well as talk with him. Television will bring the theatre into the home, just as now the radio brings us music. Libraries and schools perhaps will have talking books to give 'readings' to students.

"Then there is that wonderful electric eye, the photoelectric cell. It sees better than our eyes, and doesn't get tired. It can detect counterfeit money, it is said; and can pick out defective cans of salmon in a canning factory. It can count people as they go by. It may be made to switch traffic signals on and off at busy street corners. It measures the smoke coming out of a smoke stack. It is used in timing dog races. When it sees a waitress with dishes in both hands coming into the dining room, it opens the door for her. Attach the electric eye to a drinking fountain; it sees a thirsty person coming, and turns on the water for him, as he bends over to drink. There will be thousands of other uses for such an electric eye.

"You will see many more wonderful inventions in your life time. They will bring you more comforts and conveniences and make your life richer."

And in conclusion we quote from Ogburn, "It is Youth to whom we must look—not old men. They must learn to adjust themselves to the Machine. Perhaps they can see in advance what some of its effects will be. Our ancestors had the problem of adjusting themselves to snow and ice, to the sabre-toothed tiger and the wooly rhinoceros. The problem of the modern age is to adjust itself to a new monster, the Machine. Its habitat is not the forest, but the modern city. The future is in the hands of Youth."[1]

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[1] Ogburn, W. F., *You and Machines*, University of Chicago Press.

APPENDIX A.

The material for chapters V to XVII inclusive was mainly obtained from questionnaires which had been prepared by Miss Dorothy Deakin. The questionnaires were sent out by the Alberta Teachers' Association to certain selected teachers in the province. These teachers were asked to interview representative men in a specified occupation and return the questionnaire to the offices of the A.T.A. The majority of the questionnaires had been returned early in 1937, so that most of the information given in the study of the vocations in the above mentioned chapters refers to conditions as they existed in Alberta in 1936. From 1 to 4 questionnaires were obtained on each of the occupations discussed. The questionnaire was as follows:

QUALIFICATIONS

1. Which High School course would serve as the most suitable basis for this line of work? (University entrance, Normal entrance).
2. How many years of High School training is absolutely necessary?
3. What further education, either of a general or special nature, would you advise in view of the fact that advancement is desired?
4. What personality traits are especially desirable for this line of work?
5. What personality traits would be very detrimental for this line of work?
6. What character traits would be desirable?
7. What character traits would be detrimental?
8. What physical characteristics would be necessary?
9. What physical characteristics would be detrimental?
10. Along what lines is special ability or special training necessary in this occupation?
11. Between what years of age is the individual most likely to be admitted into the occupation? Give the upper and lower age limits.

12. To what extent is the number entering this field regulated by means of standards, tests, examinations, etc.?
13. What recommendations are necessary for those desiring admission into the field?

TRAINING

1. Length of course.
2. Nature of course taken during training.
3. Where may training be best obtained?
4. Estimate the availability of training, i.e., distance from home where training along these lines may be obtained.
5. Approximate cost of training:
    - Fees
    - Board
    - Books
    - Transportation
    - Tools, apparatus, etc.
6. Flexibility of training, i.e. where else besides in this particular occupation might this type of training be utilized so that the individual need not suffer too much from unemployment?
7. In the case of apprenticeship give the nature of the course, the length of the course, the conditions under which the individual must work and the remuneration he receives.
8. Outline any other method whereby the individual may be trained in this field.
9. What assistance, scholarships or grants are available for young people whose parents are unable to bear the full cost of training?

REMUNERATION

1. What is the usual initial salary?
2. Estimate the range of salary to be found in this occupation.
3. What is the usual salary given to one with accepted training and reasonable experience?
4. How long does it take to reach a modest home-supporting status?
5. Is there a definite rate of increase in salary?

6. If so, give the details.
7. To what extent do Trade Unions, Professional Societies, etc., influence wages, salaries or remuneration?
8. What provision is made so that the individual may be sure of collecting his salary, wages or remuneration?
9. What is the method of payment, i.e. is he paid on a commission basis, or a salary basis or both?
   Give details.
10. What are the demands upon his wages, salary or remuneration by society?

DUTIES

1. Outline briefly the nature of the work the individual is required to perform in this occupation.
2. Do duties involve dealing chiefly
   - with ideas?
   - with persons?
   - with things?
3. How does the nature of the work change as one advances to the more superior positions?
4. Are there duties apart from those pertaining directly to the position? If so, what are they?
5. Can the work of the individual be observed or is it merged in the accomplishments of others?
6. Do the duties in this field change or are they the same day in and day out?

OPPORTUNITIES

1. After training or graduation where may the individual expect to find employment, i.e. in what fields is this type of training utilized?
2. What are the individual's chances of obtaining employment in these various fields, i.e. What is the ratio of supply to demand in each of the fields enumerated under (1)?
3. Estimate the need for specialists in these fields.
4. Is the field new or old?
5. Is this particular occupation in a state of growth or is it in retrograde?

6. Where (geographically) are the greatest number of opportunities to be found in this occupation?
7. To whom would the individual desiring employment in this type of work submit his application or to whom would they go for a personal interview?

HOURS

1. How long is the working day?
2. Between what hours would the individual be required to work?
3. Are the working hours regular?
        fairly regular?
        very irregular?
4. Is the individual paid for overtime?
    If so at what rate is he paid for overtime?
5. Is there any limitation on the amount of overtime he is allowed?
    If so, what?
6. How many days a week is the individual required to work?
7. Does the individual receive public holidays?
8. How long is he allowed for his annual holidays?
9. Does he receive pay during holidays?
10. Estimate the amount of leisure time per day.

ADVANCEMENT

1. Is there any uniform rate of advancement?
2. If so, state how it operates.
3. Is advancement based primarily upon merit?
4. Is advancement based primarily upon seniority?
5. To what extent is advancement contingent upon extra training?
6. Estimate the individual's chances for advancement in this field.

RELATIVE SECURITY OF TENURE

1. Does the presence of unions, societies, etc. in any way regulate the number of members in the vocation, calling, profession or occupation so that there will be no overcrowding?

2. If so, by what means is the number of members regulated?
3. Are there any unions to uphold the rights of employees in cases of dispute with employer?
4. To what extent is collective bargaining allowed?
5. Are changes in government, management, etc. very likely to affect the position?

1. Is there a retiring age in force?
2. Is it actually enforced?
3. What is the retiring age?
4. Is there a pension scheme?
5. If so, state conditions under which the individual may receive said pensions.
6. How much is the pension?
7. Is there any means of insurance in case of accident?
   in case of illness?
   in case of death?
8. How does the employee contribute to each of these?
9. What are the benefits he receives in each case?
10. Do wages continue when individual is off due to illness or accident?
11. How many days with pay is he allowed?

Special Advantages and Disadvantages

1. What opportunities has the individual for profitable and stimulating pursuits in his leisure time?
2. Is there any inner satisfaction resulting from this type of employment?
3. What is the social importance of this type of work, i.e. what contributions does this type of work make to society?
4. What social recognition is given to the work?
5. Is one likely to have congenial associates in this occupation?
6. Is this type of occupation characterized by monotony, repetition, etc., or is there free scope for originality and initiative?

7. Does this work entail a great deal of travelling or many absences from home?
8. Are there opportunities for self-development within the vocation, profession or occupation?
9. Is the individual permitted complete freedom in respect to citizenship privileges, social privileges, political privileges, religious privileges, etc.?
10. What is the effect of this type of work upon health, nerves, etc.?

APPENDIX B

The material for Chapter II was obtained from a study of the following questionnaire. The questionnaire was sent out by the A.T.A. to a number of teachers in the province with the request that they have their students answer the questions indicated. Answers were obtained from approximately 815 students from grades 6 to 12 inclusive in town, village and rural schools. The majority of the students were in town schools. The questionnaire is as follows:

1. Do you attend a rural school, a village school or a town school?
2. Age.
3. Sex.
4. Grade.
5. What would you be most interested in doing as your lifework?
6. Why does this occupation interest you? Why do you choose it?
7. My father's occupation is (or was).
8. If you have any older brothers and sisters what are they planning to do? If they are working give their occupations.

APPENDIX C

The matriculation requirements for the University of Alberta for the year 1940-41 will presumably be as follows. However, you should check this matter very carefully with your principal or teacher or with the registrar of the University of Alberta, who should be freely consulted in the matter of matriculation requirements.

1. Faculty of Arts and Sciences:
    - (a) For the degrees of B.A., B.Sc. in Arts and B. Com: Grade XII standing in the following seven units—English, a language, Algebra, Geometry, Two of Physics, Chemistry, Biology, and Social Studies OR a third science.
    - (b) For the degree of B.A. only, in the case of students interested primarily in languages or social sciences: Grade XII standing in—English, a language, Social studies, a second language (second unit), and *three* of Algebra, Geometry, Physics *or* Chemistry, Biology, the third unit of a second language.
    - (c) For B.Sc. in H. Ec.: the same as for (a) EXCEPT that physics and chemistry are *both* required.
    - (d) For B. H. Ec.: the same as for students from a school of Agriculture who enter the B.Sc. course in Agriculture. (See Agriculture below).
    - (e) For Pharmacy Licentiate and the B.Sc. in Pharmacy: the same as for (a) EXCEPT that physics and chemistry are *both* required and the language *must be* Latin.
2. Faculty of Applied Science:
    - (a) For B.Sc. in Engineering or Architecture and for the combined courses—the same as for 1. (c) above.
3. Faculty of Medicine:
    - (a) For Medicine, Dentistry or the combined courses in Arts and Medicine or Arts and

Dentistry—Grade XII standing in English, French OR German, Algebra, Geometry, Physics, Chemistry, Latin (second unit only).

4. Faculty of Law: the degree of B.A. or its equivalent, or registration for the combined degrees of B.A., LL.B. For the combined degrees of B.A., LL.B. the same as for B.Sc. as in 1. (a) above.
5. Faculty of Agriculture: This is effective with the registration of September, 1939.
   (a) For the B.Sc. in Agriculture—Complete grade XI with English, Mathematics, Physics, Chemistry, and a language as required subjects OR a diploma from a Provincial School of Agriculture with Grade XI credit in English, Mathematics, Social studies and a language.
   (b) For the Combined degrees of B.A. and B.Sc. in Agriculture the same as for B.Sc. in Arts as in 1. (a) above.[1]

The following points should be specially noted as applying to the *University of Alberta matriculation requirements for the year 1940-41.*

(1) Students planning on entering the course leading to the B. Com. degree should notice that a *modern language* is required of them during the university course.

(2) Students intending to register in honors Geology are advised to have a reading knowledge of both French and German. Students in honors Chemistry and Medical students would also find such a knowledge very valuable. Honors history students *must* be able to read either French or German: the ability to read both would be very useful. Honors students

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[1] Students who do not wish to prepare for university study will doubtless agree after reading the above that there are subjects in this list that are not as interesting, nor probably as educational for them, as are other options in the high school course. Employers in general should realize that the high school course offers many options which give a better training for high school students who enter business after grade XII than does the matriculation program.

in political economy must also be capable of reading *at least* one modern language.

(3) Students in Commerce are strongly urged to secure, prior to graduation, a good working knowledge of stenography and typewriting, particularly if the student desires to enter the School of Education.

The length of time required to complete specified university courses at the University of Alberta is indicated below. The annual fees for undergraduates in each faculty for the same university for the year 1937-38 is also indicated.

Degree	*Length of time required*
1. B.A., B. Com., B.Sc. in Arts and B.Sc. in Household Economics.	Three years after senior matriculation.
2. B.Sc. in Pharmacy.	Three years after senior matriculation plus two years of apprenticeship.
3. B. H. Ec.	Three years after graduation from a Provincial School of Agriculture.
4. B.Sc. in Agriculture.	Four years after junior matriculation or three years after graduation from a Provincial School of Agriculture.
5. Combined Degree of B.A., B.Sc. in Agriculture.	Five years after senior matriculation.
6. B.Sc in Engineering or Architecture.	Four years after senior matriculation.
7. Combined degrees of B.A., B.Sc. in Engineering or Architecture.	Six years after senior matriculation.
8. LL.B.	Three years after B.A. degree.
9. Combined degrees B.A., LL.B.	Five years after senior matriculation.
10. D.D.S.	Five years after senior matriculation.
11. M.D.	Six years after senior matriculation.

12. Combined degrees B.A., D.D.S., or B.Sc., D.D.S.	Six years after senior matriculation.
13. Combined degrees B.A., M.D., or B.Sc., M.D.	Seven years after senior matriculation.
14. B.Sc. in Nursing.	Five years after senior matriculation.
15. Diploma in Nursing.	Three years after senior matriculation.
16. Diploma in Pharmacy.	Two years after senior matriculation with two years of apprenticeship.
17. For degrees with honors.	Four years after senior matriculation.

The annual fees are as follows:
For *all* undergraduates—$29.00.

Degree	*Tuition Fee*
1. B.A., B.Sc. in Arts, B.Sc. in Pharmacy, B.Sc. in H. Ec., B. H. Ec.	$110.
2. B. Com.	$125.
3. Applied Science.	$150.
Arts and Applied Science.	$110 for the 1st and 2nd years; $150 for the rest.
4. Law.	$135.
Arts and Law.	$110 for the 1st and 2nd years; $135 a year for subsequent years.
5. Medicine.	1st year $150 2nd, 3rd, 4th years $215 5th and 6th $225
Arts and Medicine.	1st and 2nd years $110 3rd, 4th, 5th years $215 6th and 7th years $225
6. Dentistry.	1st year $150 2nd and 3rd years $210 4th and 5th years $235
Arts and Dentistry.	1st and 2nd years $110 3rd and 4th years $210 5th and 6th years $235

7. Nursing—Degree course.	1st and 5th years	$ 95
	2nd, 3rd, 4th years	gratis
Diploma course.	Gratis.	
8. Pharmacy—Licentiate.	1st year	$125
	2nd year	$150
9. Agriculture.	1st year	$ 60
	Subsequent years	$ 85
Arts and Agriculture.	1st, 2nd, 3rd years	$110
	4th and 5th years	$ 85

It should be noted that a laboratory fee of $5 per course, with a maximum charge of $10, is also levied for practically all laboratory courses.

In addition to the above expenses you should consider the cost of books, which is usually more than $15 per year, room and board, travelling expenses and incidental expenses connected with entertainment, club dues and so on.

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